## The End Of The Beginning

The Complete Guide to Future Events as Revealed in the Bible

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Every Yet-To-Be Fulfilled Prophecy Explored

Volume IV Appendices: Chronological Factors

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## Volume 4: Introduction CHRONOLOGY ISSUES

All my life I've been told that we can't possibly know anything about the timing God has planned for the future events He has prophesied in His Word. The subject of God's chronology is off-limits, taboo, bad form. Don't even ask. No one knows the day or the hour...

On the other hand, I was also told (by the same sorts of people) that God's name was "the Lord," that Jesus' birthday was on December 25, that the nature of God is best described as a Trinity, that if you're not "saved" (in the Protestant sense), you're automatically doomed to an eternity of physical torment in hell fire, and that as Christians, we need not pay any attention to the Torah, 'cause after all, "the law has been nailed to the cross." None of those things, it transpires, are true either.

So at some point in life's journey, I decided to stop listening to "religious experts," to mindless traditions, and yes, even to what I wished to be true. But I could still add two and two, and I could read the writing on the wall as well, so was forced by undeniable logic to conclude that there was indeed a Creator: the universe and the life within it didn't just happen by accident, never mind what they taught us in school. I may be slow, but I'm *not entirely stupid*.

Though it didn't really take any "faith" to believe in the existence of a divine Creator, some things required logic-based conclusions. My first "assumption" was that it was inconceivable that such a Creator-God had not bothered to communicate anything about His nature, plan, or agenda to us sentient beings. There *had to be* an accessible and authoritative source of objective truth—a record of God's thoughts and desires. A God clever enough to create all this would not—by nature—leave us to flail about in the dark.

Having been raised a Christian from childhood, the first place I looked for evidence of this was, quite naturally, in my religion. But to be honest, I found the Christian religion as a whole to be splintered and fragmented beyond recognition—contradictory, self-serving, and at war with itself. My co-religionists couldn't seem to agree on much of anything. So the answer wasn't there. But *all* of the world's religions were equally dysfunctional (most of them even more so than in Christianity), so the answer wasn't to be found in one of *them*, either. Religion, it turned out, was a dry hole.

If God wanted to communicate with man (without overrunning the place with theophanies and angels), He would have to leave a tangible message behind—a written record of some sort. And then He'd have to ensure that it was preserved

throughout the ages. Presumably, this would be easy enough for the Creator of the Universe to do. And indeed, the world is awash in religious documents, "scriptures" if you will. But of all of the world's scriptures, only two—the Bible and the Qur'an—claim to be the actual "Word" of God. Nothing else even *pretends* to be a message from the Creator. The Rig Veda, the Upanishads, the Bhagavad Gita and Puranas of Hinduism, the Suttantas, Sutras, Suttas, and Shastras of Buddhism, the Shu King, Shi King, Hsiao King, Golden Mean, and Analects of Confucius, the Tao Teh King and writings of Chuang-Tze from Taoism, the Gathas, Vendidad, and Yasna of Zoroastrianism, the Talmud's Mishna and Gemara from Judaism, and Islam's Hadith (the "Sayings of the Prophet") and Sunnah (the "Example," Muhammad's biographies).... *All of them*—and many more—are admittedly the works of mortal men who were trying to find their way to God (or truth, or enlightenment, or inner peace...).

Furthermore, only one document in existence even *purports* to be a "code of law" handed down by God Himself. *Only one*. The Torah or "Instructions," the Bible's first five books, also known as the Pentateuch, was handed down by Yahweh (that's God's self-revealed name, meaning "I Am") through His servant Moses. The Bible boasts some *forty* writers, but none of them disagree with Moses. All of them seem to take it as "a given" that the Torah is Yahweh's fundamental truth. But nowhere else in the annals of "religious literature" does God *personally* issue a comprehensive set of directives or rules to live by.

Of course, because of its claims to divine authorship, one has to at least *consider* the Qur'an, Islam's "holiest" book. But you can't get anywhere near Sharia law through its pages. The "laws" of Islamic religious practice, including Islam's "five pillars" must be gleaned piecemeal from the Hadith, which recounts the words of *Muhammad*, not Allah. But then we learn that *all* of the Qur'an's books (or *Surahs*) were transmitted through this same "prophet," Muhammad. The entire scheme stands or falls on the word of one man—a man with an ax to grind, at that. Even worse, Muhammad then reveals that his divine revelations were not given to him verbally at all, but rather—well, let us allow Muhammad's words to speak for themselves:

"Allah's Messenger! How is the Divine Inspiration revealed to you?' He replied, 'Sometimes it is like the ringing of a bell. This form of inspiration is the hardest of all and then this state passes off after I have grasped what is inspired. Sometimes the angel comes in the form of a man and talks to me and I grasp whatever he says." (From the *Hadith of al-Bukhari*). But then we learn that "the angel," (that is, a being called Gabriel) wasn't a very big part of the "Prophet's" revelation process. Muhammad's child-wife Aisha—who knew him better than anyone—is reported (by al-Bukhari) to have said, "Whoever claims the Prophet Muhammad saw his Lord (i.e., Allah) is committing a great fault, for he only saw

Gabriel in his genuine shape, in which he was covering the horizon." She also said, "The Prophet [only] saw Gabriel in his true form *twice*." It's worth noting that the first time Muhammad encountered "Gabriel," the would-be prophet was convinced he was conversing with a *jinn* or demon.

That leaves the vast bulk of Islamic scripture—by its own admission transmitted by "the ringing of a bell," something Muhammad was then supposed to interpret and transmit (which, objectivity aside, was something of a logistics problem, since he was admittedly illiterate). But even then, Allah and his prophet couldn't seem to get it right. Allah himself is seen covering his own mistakes with this timely revelation: "When we cancel a verse or throw it into oblivion, we replace it with a better one." (Quran 2:106) Of course, it's devilishly hard to figure out which verses were "cancelled" or "thrown into oblivion," since the Qur'an is still—after all these centuries—replete with blatant contradictions (not to mention being a manifesto for genocidal war—not exactly the sort of thing you'd expect from a "god" who ostensibly went to so much trouble creating the universe).

To be fair, though, the Bible has been accused (mostly by people who haven't read it) of being contradictory and warlike as well. So let's address that. Like most Christians, I used to studiously avoid the "problem passages," fearing what I might find lurking there. But for the past ten or fifteen years now, I've been taking the opposite tack—facing them head-on, one by one. I walked on eggshells the first couple times I did this. But now, having carved *hundreds* of notches in my tomahawk (so to speak) it has become sort of a game—one I *know* God will always win, 'cause He has never lost. The problem virtually always turns out to be either a translation glitch—a misleading or inadequate choice of English words to express what was originally said in Hebrew or Greek—or a faulty assumption on my part, based on errant traditions and entrenched religious fables. As it turns out, Yahweh's scriptures themselves are *never* contradictory, *never* inconsistent, and *never* wrong.

And "warlike?" Although the Bible *reports* numerous conflicts (often explaining why they happened), a careful reading of the record reveals that Yahweh (unlike Allah) authorized *only one* "war of aggression" in all of human history. The Israelites were commanded to utterly drive out seven powerful Canaanite tribes who were living on land Yahweh had promised to their ancestor Abraham almost half a millennium previously. They were to attack (1) *only* these seven tribes; (2) *only* within the comparatively tiny plot of land (roughly the size of New Jersey) promised to Abraham, Isaac, and Jacob; (3) *only* because the Canaanites were irredeemably corrupt; and (4) *only* as Yahweh Himself led them into battle.

It is telling that, whereas Allah's Islamic jihadists were commanded to go out and kill or enslave everybody they could (starting with Jews and Christians, whom Muhammad personally despised and envied—see the Qur'an, Surahs 5 and 9), Yahweh promised to fight Israel's battles for them: **"Observe what I command** you this day. Behold, I am driving out from before you the Amorite and the Canaanite and the Hittite and the Perizzite and the Hivite and the Jebusite." The Girgashites (the seventh Canaanite tribe) were listed elsewhere. **"Take heed to yourself, lest you make** a covenant with the inhabitants of the land where you are going, lest it be a snare in your midst. But you shall destroy their altars, break their sacred pillars, and cut down their wooden images (for you shall worship no other god, for Yahweh, whose name [Hebrew: *shem*—His character] is Jealous, is a jealous God)." (Exodus 34:11-14) **"I** will send My fear before you, I will cause confusion among all the people to whom you come, and will make all your enemies turn their backs to you. And I will send hornets before you, which shall drive out the Hivite, the Canaanite, and the Hittite from before you." (Exodus 23:27-28)

And the reason Yahweh wanted the Canaanites gone (note that He didn't demand their *death*, necessarily, only their expulsion from the Promised Land) was to protect the Israelites from being influenced and corrupted by their gross idolatry—which entailed ritual prostitution and child sacrifice (you know, sort of like *the whole world* practices today, if you think about it). "When you have crossed the Jordan into the land of Canaan, then you shall drive out all the inhabitants of the land from before you, destroy all their engraved stones, destroy all their molded images, and demolish all their high places; you shall dispossess [again, not *kill or enslave*, but drive out] the inhabitants of the land and dwell in it, for I have given you the land to possess.... But if you do not drive out the inhabitants of the land from before you, then it shall be that those whom you let remain shall be irritants in your eyes and thorns in your sides, and they shall harass you in the land where you dwell. Moreover it shall be that I will do to you as I thought to do to them.'" (Numbers 33: 51-53, 55-56)

So, no: the God of the Bible does not ordinarily instigate wars in this world. In fact, whether in history or prophecy, He never seems to get personally (i.e., miraculously) involved in human military conflicts until His enemies actually invade the Land of Promise—something that (according to the prophetic texts) will happen *twice* during the Tribulation. The Bible, then, is turning out to be utterly unique among the world's scriptures, if you take God at His word (rather than substituting what He said with the traditions men have built upon it).

What's really striking to me is the degree to which all forty writers of scripture are compatible—as if (*choke, cough*) they were all serving as "ghost writers" or secretaries for the same Author. Although they came from a wide variety of backgrounds, lived in different places, spoke several different languages, wrote with different alphabets, and endured different political and

cultural environments, all forty writers were in total agreement when it came to expressing Yahweh's truth. Whereas Muhammad (ostensibly speaking for Allah) couldn't keep his story straight from one month to the next, the Bible's communication crew, spread out over fifteen hundred years, is always "on the same page," so to speak. They are *so* consistent, in fact, that in the rare instances when they seem to be at odds, a shift in *our* point of view is usually all it takes to sort out the "problem." (For example, many of the prophetic descriptions of the battles of Magog and Armageddon are quite similar—but they are two different events, fought at two different times, against two different enemies. Realizing this—and paying attention to the details—can usually help us differentiate which is which in prophetic scripture.)

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The other striking thing about the Bible is that, for a book which (according to conventional wisdom) isn't supposed to reveal anything specific about God's schedule, it is peppered from one end to the other with references to *time*. The very first verse in Genesis speaks of "the beginning"—something that might seem odd indeed for a book that purports to reveal a God who dwells outside of time, a God who (unlike anything in His creation) maneuvers back and forth within the fourth dimension—or who, at the very least, has flawless foreknowledge of future events. The next to last verse of the Book of Revelation speaks of the "suddenness" of Christ's return—again, an expression of relative time. And in between, there are hundreds of references—some general, some hyper-specific—to the *schedule* of God's plan.

Even more remarkable, many of these references are in *prophetic* texts things that even now have not yet come to pass. A few examples: there are said to be three and a half "times" (i.e., schematic "years" of 360 days each) for this, forty-two months for that, and 1,260 days for something else (all of which, you'll notice, express the same duration of time in different ways—a device God uses, apparently, to help us differentiate the events in our minds). A certain plague is predicted to last precisely five months. You are said to be "blessed" if you make it until 1,335 days past a specific event. God's program for the nation of Israel is said to last for "seventy sevens" (that is, seventy time periods of seven "schematic years" each—a total of 490 schematic years, or 176,400 days), beginning with a specific now-historic event. 483 of these "times" (173,880 days—and note that God never actually calls them "years") are now in the past, leaving one final "seven," a period of 2,520 days, yet to run, until…until *what*? Until the end of time? No. Until the beginning of a thousand-year period of time in which Yahweh (in the form of the risen and glorified Messiah, Yahshua) will reign personally upon the throne of planet Earth. So prophecies revealing God's *schedule* are everywhere you look. It would therefore seem the height of folly to take Christ's statement "No man knows the day or the hour" and apply it to *everything* in His prophetic plan. And yet, that's what most Christians are taught to do.

If you're willing to see it, the Bible speaks incessantly of one sudden and climactic paradigm shift: the chronological fulcrum upon which the fate of humanity is balanced: the tipping point of destiny, so to speak. The pattern that reveals it is repeated again and again throughout scripture: six of one thing, followed by one of another. In the creation account, the concept is introduced symbolically as the end of God's "work" (after six "days") and the beginning of His "rest" on the seventh. It's the Sabbath principle: the transition from the sixth day to the seventh. It symbolizes the moment when man's "work" is done and his "rest" in God begins. As far as Yahweh's plan of redemption is concerned, the "six days of work" began not at the commencement of creation (which, you'll recall, Yahweh called "very good") but rather when humanity fell into sin-the instant we became estranged from the God who made us. The entire Bible, in the final analysis, speaks of this: what it would take to achieve our reconciliation with Yahweh. The stories, the history, the admonitions, the rules, the doctrine, the symbols, the poetry, the prophecy—all of it is calculated to get us from point A (our current sinful state) to point *B* (rest and redemption in God's grace).

According to this Sabbath principle, there is a deadline, a point after which we can no longer "work out our salvation with fear and trembling" (as Paul put it). When (as the Sabbath symbol pictures it) the sun descends beneath the western horizon on the "sixth day," man's work will be finished, whether we like it or not. As Christ Himself reminded us, "I must work the works of Him who sent Me while it is day; the night is coming when no one can work." (John 9:4)

But what *is* this work? What are we supposed to be doing with our lives? Yahshua explained the counterintuitive truth: **"Then they said to Him, 'What shall we do, that we may work the works of God?' Jesus answered and said to them, 'This is the work of God: that you believe in Him whom He sent.'" (John 6:28-29) What? No alms, penance, prayers, piety, charitable works, clean living, or self-sacrifice? No meticulous keeping of the Torah's myriad precepts? No. Although these are all good things, as far as they go, they're not what define the lives of God's children, exactly. Rather, they're supposed to be the** *result* **of our "work"—our belief, trust, and reliance upon the One whom Yahweh sent as the "Lamb of God who takes away the sin of the world": Yahshua the Messiah.** 

"Keeping the Sabbath," then, is in the final analysis nothing more or less than standing with Yahshua—honoring Him as King. That is, if the coming paradigm fulcrum—the Sabbath deadline—entails the transition from "work" (i.e., belief in Yahshua) to "rest in Him," it logically requires a shift from living by *faith* (as we must do presently) to walking by *sight*—empirical first-hand knowledge that the Bible's promises were in fact true. What separates "day six" from "day seven," then, is the risen Christ's physical presence upon the earth, reigning in glory as the King of kings. After all, one can no longer "believe" in the Messiah if denying Him is not an option. You cannot freely choose something that's impossible to reject. When Christ finally rules the earth with a rod of iron (as the scriptures insist He must), though *rebellion* might still be conceivable, it will be impossible not to perceive that He exercises absolute authority—that He is, in fact, God incarnate. For that matter, it won't even be possible to *ignore* Him anymore: ignorance will no longer be an option. In a sense, then, the Sabbath marks the end of God's primary gift to mankind: the privilege of free will.

Take a good, long look at Yahweh's established *modus operandi*. When He made the made the sun and moon visible (and equipped us with eyes to see them), He did so with a purpose in mind: **"Then God said, 'Let there be lights in the firmament of the heavens to divide the day from the night; and let them be for signs and seasons, and for days and years."** (Genesis 1:14) He wanted us to be able to know what time it was, to perceive whether we were in darkness or light, to have the means to determine the seasons of the year and the lateness of the hour. But note: these things were meant to be *signs*—indicators of a larger, more significant truth.

The Sabbath "law" itself told us what this sign meant: "Remember the Sabbath day, to keep it holy. Six days you shall labor and do all your work, but the seventh day is the Sabbath of Yahweh your God. In it you shall do no work: you, nor your son, nor your daughter, nor your male servant, nor your female servant, nor your cattle, nor your stranger who is within your gates. For in six days Yahweh made the heavens and the earth, the sea, and all that is in them, and rested the seventh day. Therefore Yahweh blessed the Sabbath day and hallowed it [that is, set it apart from the other days]." (Exodus 20:8-11) There was to be no "work" on the Sabbath because "work" was a euphemism (as Yahshua later informed us) of *choosing* to trust God—to place our faith in the efficacy of His sacrifice—while we still had the chance. Remember: there's a deadline. When the sun goes down on the "sixth day," voluntarily choosing to rely upon Yahweh (God's definition of "work") will no longer be an option. This was so important a concept, the instruction is listed within the most fundamental document of all, the Ten Commandments. Yahweh instructed the Israelites to observe the sign of the Sabbath on a weekly basis throughout their generations as long as mortal man walked the earth. And we—the rest of the world—were supposed to observe *them*, and ponder what this sign might mean.

Putting the pieces of the puzzle together, then, (1) God made it possible to observe the movements of the sun relative to the earth, investing our days with the connotation of a sign; (2) He designated the seventh day as a day of rest: no work could be done; (3) He then defined "the work of God" as the voluntarily act of

placing one's faith in the efficacy of the Messiah's sacrifice. It should be obvious by now that the "Sabbath" is not merely meant to be a semi-pointless weekly ritual. It is, rather, a metaphor for a larger, viscerally significant concept: the *ultimate Sabbath*—the paradigm tipping point of which I spoke. This definitive Sabbath predicts the ascension of Christ to the throne of Earth. It's the point at which *everything* changes—when we move from hope to fulfillment, from questions to answers, from faith to fruition.

That being the case, ask yourself this: is it *remotely* conceivable that God would have kept the date of the ultimate Sabbath—the day when everything changes for the human race—a deep, dark secret? If understanding the concept of a paradigm shift in the way we relate to God was so important that we were equipped to comprehend and calculate the timing of the *sign* (i.e., the Sabbath), is it even *possible* that God would hide the timing of that toward which the sign was meant to point? I think not. But it goes without saying (though I'll say it anyway) that Yahweh would naturally couch the information in terms that were clear to those who revered His Word, but were opaque to people who didn't want to know Him. If the truth is hidden, it's hidden in plain sight, visible only to those who are looking for it.

That's not to say God told us *everything* about His schedule. One date in particular He opted to keep hidden from us—for our own good, of course. It is that day to which He was referring when Yahshua told His disciples on the Mount of Olives, "But of that day and hour no one knows, not even the angels of heaven, but My Father only." (Matthew 24:36) Then, without taking a breath, He describes this "hidden day," comparing it to Noah's flood. The point was that in Noah's day, though everybody could (and should) have known a flood was coming ('cause he had been building a big boat for decades, telling them all why it was going to be necessary) the deluge *still* took them by surprise. Yahshua then speaks of division, of separation—of one being taken and the other left—when this mysterious event transpires. He even tells us why it's being kept a secret: so "the master of the house" (at the moment, that's Satan) wouldn't know what was going on until it was too late to do anything about it. So several times in this one paragraph, Yahshua admonishes us to remain watchful and ready, for this day—the coming of the Son of Man for the people to whom He is Lord (vs. 42, 44), to separate them from those who are not His-would come without warning or preamble. The day to which He's referring is commonly referred to as the "rapture of the church." It is not to be confused with "the second coming" or "the beginning of Christ's Millennial reign." In fact, all three of these events are celebrated separately through the last three "Feasts" of Yahweh.

I'll be discussing all of this in detail in the following chapter. For now, just be aware that Yahweh told us a great deal about His schedule for the Last Days,

including the crucial Sabbath paradigm shift of which I spoke—but *not* the timing of the rapture. A few verses prior to the "no one knows" declaration, however, Yahshua flatly stated that His people would easily be able to discern the *season*, in general terms, in which the events of the Last Days of our era would take place: "Now learn this parable from the fig tree: When its branch has already become tender and puts forth leaves, you know that summer is near. So you also, when you see all these things, know that it is near—at the doors! Assuredly, I say to you, this generation [i.e., the generation that sees the previously listed signs] will by no means pass away till all these things take place." (Matthew 24:32-34) So it should come as no surprise that millions of Christians have the distinct impression that we are now nearing the Last Days—when "all these things will take place."

Besides the fact that "the fig tree" is a common scriptural euphemism for Israel, it should be obvious that *any* budding tree is a sure sign that winter is past and summer is on its way: it's a harbinger of change, of renewal. With that in mind, note that the signs Yahshua listed as indicators that the Last Days were approaching were not miraculous heavenly events or unprecedented catastrophes, necessarily. They were, rather, the multiplicity and coincidence of various problems that had sporadically plagued mankind ever since the fall of Adam: deceivers, false Messiahs, wars and rumors of war, famines, disease, earthquakes, storms, betrayal, groundless offense, widespread godlessness, hatred, false prophets, lawlessness, and a general waning of love among humanity. All throughout history, one or another of these curses had usually been in evidence somewhere in our world. But as the Last Days approached, we were told, *all of these things* would begin to characterize our society and environment, all at once, as never before.

We've been discussing the Bible's fixation on one specific future day that will prove to be the "fulcrum of destiny" for mankind—the tipping point upon which everything hinges: the "first day of the rest of our life," as it were. It marks the transition from the "work week" to the Sabbath rest, or in terms of Yahweh's symbology, the progression from the sixth day to the seventh—not another dress rehearsal, but finally, the one day in all of human history toward which all of God's prophetic metaphors pointed.

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As I studied the data, I was confronted with a mountain of scriptural evidence suggesting that God had indeed told us precisely—to the very day—when King Yahshua's Millennial reign would commence. And there was (as I noted) a boatload of other timeline data dispersed throughout scripture that interlocked into that date. It was only after the initial shock wore off—and after I realized that scripture had once again made a heretic out of me in the eyes of my brothers—that the import of this chronological data struck me: *the human race was almost out of time*. We had blown through our six "work days" and were now facing the Sabbath with precious little to show for our efforts—just like the servant in the parable who buried his talent in the ground.

Of course, as compelling as I found the evidence personally, it was still only a theory—one I couldn't prove (which was probably by God's design). After all, we are still living in the age of faith, an era in which God provides *evidence*, not *proof.* And (let's face it) I've been known to be wrong, on occasion. So I finished my 900-page treatise on Biblical Prophecy, and there it sat (as a free online book) for eight or nine years. During that time a lot of prophetically significant events happened in the world, virtually all of it tending to support or verify the conclusions I'd made, based on what had been written on parchment and papyrus by God's prophets and apostles thousands of years ago.

But in the intervening years (as I focused my attention on other subjects, like the Torah and Yahweh's extensive matrix of symbols) unexpected issues began raising their ugly little heads. These were not events or processes God had specifically prophesied, things I had somehow missed in God's Word. Rather, they were surprising confirmations of the *timeline* I had discerned in scripture from strictly secular sources. As I read and studied, I became aware of *dozens* of factors—cultural, demographic, financial, geological, biological, meteorological, and even astrophysical (in addition to the spiritual issues I had already explored)—that all pointed toward utter catastrophe for the human race if we remained on our present course.

It was once said, "All roads lead to Rome." In my case, I found that all roads led to a single chronological neighborhood. Not to let a cat out of the bag, but (as you'll soon discover) my conclusion concerning God's chronology was that Christ's Millennial Kingdom would commence on the Feast of Tabernacles in the autumn of 2033. And as it turned out, most of these unexpected new "doomsday factors" I'd noticed looked as if they were poised to come to fruition during the *same general timeframe*—the fourth decade of the twenty-first century—the same period of time my scripture research had indicated, though the two "trains of thought" were on completely different tracks, so to speak.

This discovery brought the subject out of the realm of "religious stuff" and dumped it squarely in the lap of the vast majority of mankind—who don't know Yahweh and don't *want* to know Him. In light of this new data, even if folks choose to relegate the Bible to the status of myth or folklore—paying it no more heed than they would Homer's *Odyssey* or the *Analects* of Confucius—they are still going to have to deal with a world that's falling apart on *the Bible's schedule*,

whether they know it or not. Even if I'm a heretic who got the whole thing wrong, seeing things in scripture that just aren't there, the bottom line will not have changed: the human race is in for a paradigm shift of catastrophic proportions during the next few decades. For that matter, even if the atheists were right after all when they opined that there is no god, and that all we are is the punch line to a big evolutionary joke, they're *still* going to have to deal with the fact that they and their whole pedantic world view will be as extinct as a triceratops by the fourth decade of this century.

The Bible has a great deal to say about the chronology of the Last Days, and we're about to look at that evidence. But even if you don't believe the Bible and don't believe me, you'll still have to deal with an imploding ecosystem, a polluted genome, and a demographic time bomb. God warned you about what's coming, and I've warned you. Okay, my opinion doesn't really count. But if you won't believe scripture, perhaps you'll believe those in the secular press and academia who have awakened to the lateness of the hour. As unlikely as it sounds, they're all singing out of the same hymnal.

## Appendix 1 NO MAN KNOWS...

What God has (and hasn't) told us about the chronology of the Last Days

My thoughts on God's timing were scattered throughout *The End of the Beginning*, since the book wasn't, strictly speaking, *about* His schedule. However, because my conclusions are apt to raise a few eyebrows, I have provided the following appendix to bring all the data together in one place, hoping to clarify the issue.

*The End of the Beginning* was written to explore every yet-to-be-fulfilled prophecy in the Bible. It was not written to advance some previously held theological agenda of mine. In fact, quite the opposite is true: when I began my study I determined a willingness to abandon any of my long-held beliefs concerning prophecy if the weight of scripture demanded it. And I must admit, there were a few areas where I got surprised (nothing fundamental, I was pleased to discover—just nuances and details).

For instance, I found out there was a lot more to God's revealed timetable than I'd previously realized. Like most evangelicals, I had long believed that Yahweh had given us no more than hints and generalized signs as to when the events of the Last Days would occur, and I was okay with that. I had a vague notion that there was an order of events that might be worked out to some extent, but in absolute terms, I was "certain" that God had decided to keep all the dates a secret—for our own good. Now, I'm not so sure. No, let me rephrase that: now, I am virtually certain that God *did* reveal many of the dates pertinent to a study of the Last Days (though not *all* of them—the rapture's date is left unspecified).

My cherished mindset on the subject was, like everybody else's, shaped by such passages as, "Watch therefore, for you know neither the day nor the hour in which the Son of Man is coming" (Matthew 25:13), or "But of that day and hour no one knows, not even the angels of heaven, but My Father only." (Matthew 24:36) In light of these scriptures, most Christians today simply throw their hands in the air and say *See*, *we can't know anything about the timing of Christ's return*. Careful exegesis, however, will reveal that there are some things we can know. We'll return to these texts later, for if we want to know what Yahshua was really talking about, we'll need to study the words and the context—carefully.

The pitfalls of "date setting," of course, are legendary and well documented. History is replete with people who, for one reason or another, thought they could predict when the "end of the world" would occur. The following list of secondcoming prognostications is from a wonderful website, Todd Strandberg's RaptureReady.com. Although almost certainly incomplete by a wide margin, it makes two things perfectly clear: (1) There is no end to mankind's fascination with apocalyptic theories—it's as if something within us *knows* our fallen race can't last forever, and (2) nobody's paying much attention to the actual words of scripture.

- 53 AD Even before all the books of the Bible were written, there was talk that Christ's return had already taken place. The Thessalonians panicked on Paul when they heard a rumor that the day of the Lord was at hand, and they had missed the rapture.
- 500 A Roman priest living in the second century predicted Christ would return in 500 AD, based on the dimensions of Noah's ark.
- 1000 This year goes down as one of the most heightened periods of hysteria over the return of Christ. All members of society seemed affected by the prediction that Jesus was coming back at the start of the new millennium. None of the events required by the Bible were transpiring at that time; the magic of the number 1000 was the sole reason for the expectation. During concluding months of 999 AD, everyone was on his best behavior; worldly goods were sold and given to the poor; swarms of pilgrims headed east to meet the Lord at Jerusalem; buildings went unrepaired; crops were left unplanted; and criminals were set free from jails. When the year 999 AD turned into 1000 AD, nothing happened.
- **1033** This year was cited as the beginning of the millennium because it marked 1,000 years since Christ's crucifixion.
- **1186** The "Letter of Toledo" warned everyone to hide in the caves and mountains. The world was reportedly to be destroyed with only a few spared.
- **1420** The Taborites of Czechoslovakia predicted every city would be annihilated by fire. Only five mountain strongholds would be saved.
- **1524-1526** Muntzer, a leader of German peasants, announced that the return of Christ was near. After Muntzer and his men destroyed the high and mighty, the Lord would supposedly return. This belief led to an uneven battle against government troops. He was strategically outnumbered. Muntzer claimed to have had a vision from God in which the Lord promised that He would catch the cannonballs of the enemy in the sleeves of His cloak. The prediction within the vision

turned out to be false when Muntzer and his followers were mowed down by cannon fire.

- 1534 A repeat of the Muntzer affair occurred a few years later. This time, Jan Matthys took over the city of Munster. The city was to be the only one spared from destruction. The inhabitants of Munster, chased out by Matthys and his men, regrouped and lay siege to the city. Within a year, everyone in the city was dead.
- **1650-1660** The Fifth Monarchy Men looked for Jesus to establish a theocracy. They took up arms and tried to seize England by force. The movement died when the British monarchy was restored in 1660.
- 1666 For the citizens of London, 1666 was not a banner year. A bubonic plague outbreak killed 100,000 and the Great Fire of London struck the same year. The world seemed at an end to most Londoners. The fact that the year ended with the Beast's number—666—didn't help matters.
- 1809 Mary Bateman, who specialized in fortune telling, had a magic chicken that laid eggs with end-time messages on them. One message said that Christ was coming. The uproar she created ended when an unannounced visitor caught her forcing an egg into the hen's oviduct. Mary later was hanged for poisoning a wealthy client. History does not record whether the offended chicken attended the hanging.
- 1814 Spiritualist Joanna Southcott made the startling claim that she, by virgin birth, would produce the second Jesus Christ. Her abdomen began to swell and so did the crowds of people around her. The time for the birth came and passed; she died soon after. An autopsy revealed she had experienced a false pregnancy.
- 1836 John Wesley wrote that "the time, times and half a time" of Revelation 12:14 were 1058-1836, "when Christ should come" (A. M. Morris, The Prophecies Unveiled, p. 361).
- 1843-1844 William Miller was the founder of an end-times movement that was so prominent it received its own name, Millerism. From his studies of the Bible, Miller determined that the second coming would happen sometime between 1843-1844. A spectacular meteor shower in 1833 gave the movement a good push forward. The buildup of anticipation continued until March 21, 1844, when Miller's one-year timetable ran out. Some followers set another date—October 22, 1844. This too failed, collapsing the movement. One follower described the days after the failed predictions: "The world made

merry over the old Prophet's predicament. The taunts and jeers of the 'scoffers' were well-nigh unbearable."

- Rev. Thomas Parker, a Massachusetts minister, looked for the millennium to start about 1859.
- Someone called Mother Shipton had, 400 years earlier, claimed that the world would end in 1881. A controversy hangs over the Shipton writings as to whether or not publishers doctored the text. If the date was wrong, should it matter anyway?
- The revisit of Halley's comet was, for many, an indication of the Lord's second coming. The earth actually passed through the gaseous tail of the comet. One enterprising man sold comet pills to people for protection against the effects of the toxic gases.
- 1914 Charles Russell, after being exposed to the teachings of William Miller, founded his own organization that evolved into the Jehovah's Witnesses. In 1914, Russell predicted the return of Jesus Christ.
- In 1918, new math didn't help the Witnesses from striking out again.
- The Witnesses had no better luck in 1925. They already possessed the title of "Most Wrong Predictions." They would expand upon it in the years to come.
- Once again, Jehovah's Witnesses believed that Armageddon was due. Before the end of 1941, the end of all things was predicted.
- When the city of Jerusalem was reclaimed by the Jews in 1967, prophecy watchers declared that the "Time of the Gentiles" had come to an end.
- The True Light Church of Christ made its claim to fame by incorrectly forecasting the return of Jesus. A number of church members had quit their livelihoods ahead of the promised advent.
- A comet that turned out to be a visual disappointment nonetheless compelled one preacher to announce that it would be a sign of the Lord's return.
- The Jehovah's Witnesses were back at it in 1975. The failure of the forecast did not affect the growth of the movement. The *Watchtower* magazine, a major Witness periodical, has over 13 million subscribers.
- We all remember the killer bee scare of the late 1970's. One prophecy prognosticator linked the bees to Revelation 9:3-12. After

20 years of progression, the bees are still in Texas. I'm beginning to think of them as the killer snails.

- 1981 One author boldly declared that the rapture would occur before December 31, 1981, based on Christian prophecy, astronomy, and a dash of ecological fatalism. He pegged the date to Jesus' promised return to earth a generation after Israel's rebirth. He also made references to the "Jupiter Effect," a planetary alignment occurring every 179 years that supposedly could lead to earthquakes and nuclear plant meltdowns.
- 1982 It was all going to end in 1982, when the planets lined up and created magnetic forces that would bring Armageddon to the earth.
- 1982 A group called the Tara Centers placed full-page advertisements in many major newspapers for the weekend of April 24-25, 1982, announcing: "The Christ is Now Here!" They predicted that He was to make himself known "within the next two months." After the date passed, they said that the delay was only because the "consciousness of the human race was not quite right..." All these years and we're still not ready.
- 1984 The Jehovah's Witnesses made sure, in 1984, that no one else would be able to top their record of most wrong doomsday predictions. The Witnesses' record currently holds at nine. The years are: 1874, 1878, 1881, 1910, 1914, 1918, 1925, 1975, and 1984. Lately, the JWs are claiming they're out of the prediction business, but it's hard to teach an old dog new tricks. They'll be back.
- **1987** The Harmonic Convergence was planned for August 16-17, 1987, and several New Age events were also to occur at that time. The second coming of the serpent god of peace and the Hopi dance awakening were two examples.
- **1988** The book, *88 Reasons Why the Rapture is in 1988*, came out only a few months before the event was to take place. What little time the book had, it used effectively. By the time the predicted dates, September 11-13, rolled around, whole churches were caught up in the excitement the book generated.
- **1989** After the passing of the deadline in *88 Reasons*, the author, Edgar Whisenant, came out with a new book called *89 Reasons Why the Rapture is in 1989*. This book sold only a fraction of the number of copies his prior release had sold.

1991	A group in Australia predicted Jesus would return through the Sydney Harbor at 9 a.m., March 31, 1991.
1991	Nation of Islam leader Louis Farrakhan proclaimed the Gulf War would be "the War of Armageddonthe final War."
1991	Menachem Schneerson, a Russian-born rabbi, called for the Messiah to come by September 9, 1991, the start of the Jewish New Year.
1992	A Korean group called Mission for the Coming Days had the Korea Church in an uproar in the fall of 1992. They foresaw October 28, 1992 as the date for the rapture. Numerology was the basis for the date. Several camera shots that left ghostly images on pictures were thought to be a supernatural confirmation of the date.
1993	If the year 2000 is the end of the 6,000-year cycle, then the rapture must take place in 1993, because you would need seven years of the tribulation. This was the thinking of a number of prophecy writers.
1994	In the book, <i>1994: The Year of Destiny</i> , F. M. Riley foretold of God's plan to rapture His people. The name of his ministry is "The Last Call," and he operates out of Missouri.
1994	<ul> <li>Pastor John Hinkle of Christ Church in Los Angeles caused quite a stir when he announced he had received a vision from God that warned of apocalyptic event on June 9, 1994. Hinkle, quoting God, said, "On Thursday June the 9th, I will rip the evil out of this world." Some people tried to interpret Hinkle's unscriptural vision to mean that God would the rip evil out of our hearts when He raptured us. The date came and went with no heart surgery or rapture.</li> </ul>
1994	<ul> <li>Harold Camping, in his book <i>Are You Ready?</i>, predicted the Lord would return in September 1994. The book was full of numerology that added up to 1994 as the date of Christ's return. [Camping would guess wrong again, but this time amid widespread (and gleeful) mainstream media hoopla, predicting that the final destruction of the world would take place on October 21, 2011.]</li> </ul>
1994	After promising they would not make anymore end time predictions, the Jehovah's Witnesses fell off the wagon and proclaimed 1994 as the conclusion of an 80-year generation; the year 1914 was the starting point.
1996	This year had a special month, according to one author who foresaw September as the time for our Lord's return. The Church Age, he said, would last 2,000 years from the time of Christ's birth in 4 BC.

1996	California psychic Sheldon Nidle predicted the end would come with the convergence of 16 million space ships and a host of angels upon the earth on December 17, 1996. Nidle explained the passing of the date by claiming the angels placed us in a holographic projection to preserve us and give us a second chance.
1997	Two widely known time estimates were Monte Judah's prediction that the tribulation would begin in February/March and another prediction based on numerology and the Psalms that targeted May 14 as the date of the rapture.
1997	When Yitzhak Rabin and Yasser Arafat signed their peace pact on the White House lawn on September 13, 1993, some saw the events as the beginning of tribulation. With the signing of the peace agreement, Daniel's 1,260-day countdown was underway. By adding 1,260 days to September 1993, you arrive at February 24, 1997.
1997	Stan Johnson of the Prophecy Club saw a "90 percent" chance that the tribulation would start September 12, 1997. He based his conclusion on several end-time signs: that would be Jesus' 2,000th birthday and it would also be the Day of Atonement, although it wouldn't be what is currently the Jewish Day of Atonement. Further supporting evidence came from Romanian pastor Dumitru Duduman. In several heavenly visions, Dumitru claimed to have seen the Book of Life. In one of his earlier visions, there were several pages yet to be completed. In his last vision, he noticed the Book of Life only had one page left. Doing some rough calculating, Johnson and friends figured the latest time frame for the completion of the book would have to be September 1997.
1998	Numerology: Because 666 times three equals 1998, some people point to this year as being prophetically significant.
1998	A Taiwanese cult operating out of Garland, Texas predicted Christ would return on March 31 of 1998. The group's leader, Heng-ming Chen, announced God would return and then invite the cult members aboard a UFO. The group abandoned their prediction when a precursor event failed to take place. The cult's leader had said that God would appear on channel 18 of every TV in the world. Maybe God realized at the last minute, the Playboy Network was channel 18 on several cable systems, and He didn't want to have Christians watching a porn channel.
1998	On April 30, 1998, Israel was to turn 50 and many believed this birthday would mark the beginning of the tribulation. The reasoning

behind this date has to do with God's age requirement for the priesthood, which is between 30-50.

1998	Marilyn Agee, in her book, <i>The End of the Age</i> , had her sights set on
	May 31, 1998. This date was to conclude the 6,000-year cycle from
	the time of Adam. Agee looked for the rapture to take place on
	Pentecost, which is also known as "the Feast of Weeks." Another
	indicator of this date was the fact that the Holy Spirit did not descend
	upon the apostles until 50 days after Christ's resurrection. Israel was
	born in 1948; add the 50 days as years and you come up with 1998.
	After her May 31 rapture date failed, Agee, unable to face up to her
	error, continued her date setting by using various Scripture
	references to point to June 7, 14, 21 and about 10 other dates.

- 1999 At least you can't call Marilyn Agee a quitter. After bombing out badly several times in 1998, Marilyn set a new date for the rapture: May 21 or 22 of this year.
- **1999** TV newscaster-turned-psychic Charles Criswell King had said in 1968 that the world as we know it would cease to exist on August 18, 1999.
- 1999 Philip Berg, a rabbi at the Kabbalah Learning Center in New York, proclaimed that the end might arrive on September 11, 1999, when "a ball of fire will descend . . . destroying almost all of mankind, all vegetation, all forms of life."
- 2000 Numerology: If you divide 2,000 by 3, you will get the devil's number: 666.6666666666666666666666666666
- 2000 The names of the people and organizations that called for the return of Christ at the turn of the century is too long to be listed here. If there were ever a day on which Christ could *not* return, it had to have been January 1, 2000.
- 2000 On May 5, 2000, all of the planets were supposed to have been in alignment. This was said to cause the earth to suffer earthquakes, volcanic eruption, and various other nasty stuff. A similar alignment occurred in 1982 and nothing happened. People failed to realize that the other nine planets only exert a very tiny gravitational pull on the earth. If you were to add up the gravitational force from the rest of the planets, the total would only amount to a fraction of the tug the moon has on the earth.
- 2000 According to Michael Rood, the end times have a prophetically complicated connection to Israel's spring barley harvest. The Day of

the Lord began on May 5, 2000. Rood's fall feast calendar called for the Russian Gog-Magog invasion of Israel to take place at sundown on October 28, 2000.

- 2000-2001 Dr. Dale SumburËru looked for March 22, 1997 to be "the date when all the dramatic events leading through the tribulation to the return of Christ should begin." The actual date of Christ's return could be somewhere between July 2000 and March 2001. Dr. SumburËru is more general about the timing of Christ's second coming than most writers. He states, "The day the Lord returns is currently unknown because He [Jesus] said these days are cut short and it is not yet clear by how much and in what manner they are cut short. If the above assumptions are not correct, my margin of error would be in weeks, or perhaps months."
- **2002** Priests from Cuba's Afro-Caribbean Yoruba religion predicted a dramatic year of tragedy and crisis for the world in 2002, ranging from coups and war to disease and flooding.
- 2004 This date for Jesus' return is based upon psalmology, numerology, the biblical 360 days per year, Jewish holidays, and "biblical astronomy." To figure out this date, you'll need a calculator, a slide rule, and plenty of scratch paper.
- **2011-2018** For the past several decades, Jack Van Impe has hinted at nearly every year as being the time for the rapture. Normally, he has only gone out one or two years from the current calendar year. However, Jack's latest projection for the rapture goes out several years. His new math uses 51 years as the length of a generation. If you add 51 years to 1967, the year Israel recaptured Jerusalem, you get 2018. Once you subtract the seven-year tribulation period, you arrive at 2011.
- 2012 New Age writers cite Mayan and Aztec calendars that predict the end of the age on December 21, 2012.
- 2060 Sir Isaac Newton, Britain's greatest scientist, spent 50 years and wrote 4,500 pages trying to predict when the end of the world was coming. The most definitive date he set for the apocalypse, which he scribbled on a scrap of paper, was 2060.

Thanks again to RaptureReady.com and Todd Strandberg's sagacious recounting of the history of prophetic foolishness. Most of these dates, of course, can be explained with the simple phrase, *You weren't paying attention to what*  *Yahweh's scriptures actually said, were you, boys and girls?* Obfuscating the issue, Strandberg goes on to note, "An untold number of people have tried to predict the Lord's return by using elaborate timetables. Most date setters do not realize that mankind has not kept an unwavering record of time. Anyone wanting to chart, for example, 100 BC to 2000 AD, would have to contend with the fact that 46 BC was 445 days long [due to badly needed adjustments imposed at the introduction of the Julian calendar], there was no year 0 BC, and in 1582 we switched from Julian Years (360 days) to Gregorian (365 days)." Strandberg is wrong here—the Julian year worked out to 365 days and six hours—about eleven minutes longer than the actual astronomical year. Pope Gregory merely fine-tuned the Julian calendar, introducing the provision to suppress certain leap years in order to keep the vernal equinox hovering around March 21. Strandberg concludes, "Because most prognosticators are not aware of all of these errors, their math is immediately off by several years."

This is all somewhat misleading. Ancient man was fully aware that a solar year was about 365<sup>1</sup>/<sub>4</sub> days long. (As early as 200 B.C., the Babylonian Jew Rab Adda had calculated the year to within seven minutes of the correct value—an amazing achievement.) The only thing that's changed is the method we've used to reconcile the lunar cycle with the solar—tinkering with the number of months per year, the days in each month, and the number and placement of intercalary (compensating) months. But how we've chosen to manage our calendars over the years has absolutely nothing to do with the actual passage of time.

There are a few factors that conspire to muddy the waters of our understanding even further. First, if there's one category of text of which we can be less than confident in our translations, it's numbers. Neither the Hebrew nor Greek originals used "numerals" as we know them; rather, letters were pressed into service to indicate numbers. For example, the Hebrew letter Aleph ( $\alpha$ ) stands in for "one," as does the Greek Alpha ( $\alpha$ ). The context and conventions of usage are supposed to tell scholars what number was meant. Worse, some paleo-Hebrew texts used the old Egyptian system employing lines for numbers, markings which were easily obscured or obliterated on papyrus scrolls.

The disturbing fact is that there are many discrepancies in regard to numbers between the Septuagint (the circa-275 B.C. translation of the Hebrew scriptures into Greek), the Masoretic text—the Hebrew Old Covenant text handed down by generations of scribes called Masoretes (literally, "transmitters") between about 500 and 1000 A.D., culminating in the widely accepted 1524 text of Jacob ben Chayyim —and the Samaritan Pentateuch. And the evidence, remarkably enough, indicates that the Septuagint and Samaritan translation may actually be more faithful to the original meaning in many cases. This might (or might not) adversely affect our accurate understanding of time periods discussed in the Old Testament. It surely makes it harder to be dogmatic.

Second, Yahweh is not using a man-made calendar. Our Gregorian date milestones—like 1000 or 2000—mean nothing to Him. His inspired explanation is found in Genesis 1:14, when He said, **"Let there be lights in the firmament (or expanse) of the heavens to divide the day from the night; and let them be for signs and seasons, for days and years."** Both the sun and the moon, and even the visible stars, would be used to define our reckoning of the passage of time. The earth spins on an axis tilted 23.5 degrees out of perpendicular to its orbit around the sun. It is this tilt that gives us our changing seasons, and without it we would have no convenient way of knowing that our year is 365.24219879 days long. The moon takes about 27.3 days (the "sidereal month") to orbit the earth, but because the earth itself is in motion in its orbit around the sun, it takes 29.530588 days (the "synodic month") to return to the same relative point in our celestial sphere—this synodic month is marked by our observation of the phases of the moon.

So since Yahweh has informed us that He's not exclusively using the sun as our timekeeper, what sort of calendar is He using? Since His dealings with mankind have been primarily through the Hebrews, we should enquire as to how they historically calculated their years. But when we do this, we immediately run into trouble, because they were not consistent throughout their history. Under Egyptian captivity, they most likely conformed to the established local system of twelve months of thirty days plus five additional days (as recorded by Herodotus). But in Exodus 12:2 (the passage introducing the Feast of Passover) we are informed that the year was to begin at the new moon of the month of Abib (see Exodus 23:15), now called Nisan. That is, the first day of the year would fall on the new moon closest to the vernal, or spring, equinox. Passover, which would fall on the 14<sup>th</sup> day of that month, would thus coincide with the full moon.

So forget the Egyptian system of counting days. Yahweh had put Israel on a simple lunar calendar: twelve months whose beginnings were marked by the sighting of the first sliver of the new moon—totaling about 354 days. For a simple agrarian society, this was a practical, low-tech way to mark time. They weren't stupid, of course; they knew they had to make adjustments now and then to keep the solar seasons in the right place on the calendar, so they added an intercalary month every so often, just as we add a leap-year day once every four years. With new-year's day in the spring as Yahweh instituted, they could check their calendar by picking some barley from their fields and roasting it. If it was not yet ripe (which, not coincidentally, is what the Hebrew word *abib* means), it would jump around in the pan because of the excess water trapped in the kernels—telling them that they needed to add an intercalary month. In practice, it worked out to seven of every nineteen years that such an intercalary month would be

added just before Abib/Nisan. (Speaking of stupidity, Muhammad, in his ignorant arrogance, *outlawed* the intercalary month being used in Arabia to keep the seasons in place—and thereby doomed *dar al-Islam* to a useless lunar calendar whose months wander around it in endless confusion—an apt metaphor for this whole satanic religion.)

The Babylonians used a similar lunar calendar, but their astronomers worked out a sophisticated nineteen-year cycle into which were interspersed seven intercalary months, either in the month of Ululu (August/September) or Addaru (February/March). Used as far back as the reign of Nebuchadnezzar II (604-562 B.C.), it was accurate to within two hours, four minutes, twenty-five seconds per year. This calendar is practically identical to the Hebrews' with the exception of the date of insertion for the intercalary years. The complexity of this lunar calendar, however, eventually led to the introduction in Babylon (as it had in Egypt) of a simplified civil calendar of twelve months of thirty days each, with a five-day chaser at the end. The Chaldeans ran this "schematic calendar" right alongside the lunar version, without regard for the actual phases of the moon. Thus the Israelites under Babylonian captivity would have been familiar with this system of reckoning as well. Indeed, in captivity, Israel abandoned their Godmandated springtime New Year's Day in favor of the Babylonians' fall date, making their Rosh Hashanah, or "head of the year" fall on the feast of Trumpets in autumn instead of in our March or April, where it belongs.

The currently used Hebrew calendar is lunar based, but with a complicated formula that will give an ordinary (non-leap) year either 353, 354, or 355 days. (It's been tweaked by Rabbinical tradition to avoid putting *Yom Kippur* on a Friday or Sunday, among other things—factors that Yahweh never ordained. The rabbis are clueless to the concept that the seven annual "feasts" of Yahweh—the *moedim* (appointed times) or *miqra'ey* (convocations)—are to have only one definitive occurrence each in an historical setting. The first four took place on the very dates of their scriptural mandates—on Sabbath days when required—so we can count on the last three following suit.) A rabbinically adjusted leap year (one that includes a thirty-day intercalary month called Veadar, or Adar II) will have 383, 384, or 385 days. The three lengths of the years are termed "deficient," "regular," and "complete," respectively.

But during the age of the prophets, this kind of Rabbinical meddling hadn't yet taken hold. Either the Levitical lunar year or the simplified Babylonian 360day schematic calendar was in use among the Jews. The question is: what system did God use when delivering His prophecies? To find out, we need to do a little reverse engineering: if there were a prophecy that specified an elapsed time, we could figure out when it had been fulfilled and then work backward to calculate the length of Yahweh's "prophetic year." Is there such a prophecy? (Gimme a break. Would I have asked the question if there weren't?)

Daniel's sweeping prophecy outlining the course of Jewish destiny contains this statement: "Know therefore and understand, that from the going forth of the command to restore and build Jerusalem until Messiah the Prince, there shall be seven weeks and sixty-two weeks. The street shall be built again, and the wall, even in troublesome times. And after the sixty-two weeks Messiah shall be cut off, but not for Himself." (Daniel 9:25) The whole story is recounted in detail in chapter 7 of *The End of the Beginning*, so I'll just hit the high spots. The "command to restore and build Jerusalem" was issued by the Persian king Artaxerxes Longimanus on the first day of Nisan, 444 B.C. Seven "weeks," or seven-prophetic-year periods later, Jerusalem's "street" and "wall" had been built, just as the prophecy had specified. And sixty-two septades (Is that a word? It should be.) later—i.e., another 434 prophetic years, adding up to 483 total—Messiah the Prince was to come. And only *after* that time would he be "cut off"—killed for crimes he had not committed.

If you count your "weeks" or "sevens" (Hebrew: *shabua*) with 365¼-day solar years, the date comes out to March 3, 39 A.D. (or thereabouts). Was anybody with Messianic aspirations doing anything to announce or advance his mission in 39? If there was, history doesn't record it. Ask yourself this, especially if you're a Jew: "What are the chances that the true Messiah showed up in Jerusalem and nobody noticed?" So Daniel's "sevens" are apparently not comprised of solar years (nor did his prophecy say they were).

There is a persistent hypothesis among some Christian researchers that the antediluvian earth year was not 365<sup>1</sup>/<sub>4</sub> days long, but an even 360. We are not told this outright anywhere in scripture you understand, but the record of Noah's flood in Genesis 6 through 9 provides some hints. Comparing Genesis 7:11 with 8:3-4 we see a period of exactly five months (i.e., the 17<sup>th</sup> day of the second month to the 17<sup>th</sup> of the seventh month) identified as "150 days." This works out to five months of thirty days each, a reckoning that fits neither the lunar calendar nor a 365<sup>1</sup>/<sub>4</sub>-day year, but extrapolates out nicely to an even 360-day year. Add to this the evidence that the most ancient calendars—Sumerian, Hindu, and Chinese—all used a 360-day system. Herodotus reported that the ancient Greeks had a 360-day year, as did Plutarch of the early Romans. In the new world, both the Mayan and Inca calendars employed the same system. Granted, this is all circumstantial evidence, but it's evidence nonetheless.

Now factor in the enigmatic promise God made to Noah in Genesis 8:22— "While the earth remains, seedtime and harvest, cold and heat, winter and summer, and day and night shall not cease." This would really be an odd thing to say under the circumstances if Noah and his forebears had always experienced radical seasonal weather changes. But if Yahweh tipped the axis of the earth to its present 23.5 degrees relative to its orbit around the sun at the time of the flood, then it all makes perfect sense. And if He changed the earth's axis, it's not beyond the realm of possibility that he slowed down our planet's solar orbit by a percentage point or two at the same time. The differences between the way the earth was described before the flood and what we see now could all be accounted for by an increase in axis angle and decrease in rotation speed. Thus the case can be made that Yahweh's original design for the earth's solar year was 360 days.

Okay, so let's recalculate Daniel's prophecy using a 360-day year. 483 (i.e., 69 x 7) 360-day "years" comes out to 173,880 days, or 476 solar years plus twenty-five days. The target date on the Hebrew calendar works out to the 10<sup>th</sup> day of Nisan, or according to our Gregorian calendar, March 28, A.D.33. The 10<sup>th</sup> of Nisan is significant in any year, but especially in years when the Jews had a temple and a Levitical priesthood in place—from 967 to 586 B.C. and from 515 B.C. to A.D. 70. Why? Because this was the day each year when the Paschal lamb was to be brought into each Jewish home (Exodus 12:3) and kept there until it was sacrificed on Passover—an event mirrored on a national scale with the selection of the Passover lamb to be sacrificed by the High Priest at the temple.

The historical significance of this particular 10<sup>th</sup> of Nisan should be thankfully acknowledged by every Christian (though few even know about it). You see, this was the very day that Yahshua of Nazareth entered Jerusalem amid the adulation of the teeming throng who had lined the road from Bethlehem in anticipation of the High Priest's selection of the perfect Passover Lamb. It's commonly known as Palm Sunday, but Constantine's people, fixated on blending sun-god worship with Christianity, got the day wrong: it was actually Palm *Monday*. The adoring crowd, of course, thought His appearance there was a happy coincidence—the Hope of Israel making His entrance on such an auspicious day. It was nothing of the sort, but a startling conclusion to a 483-year-long prophecy. Yahshua, the Lamb of God, had presented Himself for examination. He would be found without fault and then offered up for the sins of mankind four days later on Passover.

The point of all that was to demonstrate that Daniel's chapter 9 prophecy was based on a 360-day year. Why should we care? Because the prophecy isn't done. **"Seventy weeks are determined for your people and for your holy city, to finish the transgression, to make an end of sins, to make reconciliation for iniquity, to bring in everlasting righteousness, to seal up vision and prophecy, and to anoint the Most Holy."** (Daniel 9:24) The prophecy spans *seventy* weeks of years, of which only sixty-nine were fulfilled before the Messiah's advent. There's still one "week" to go, and now we know that that septade will be comprised of seven 360-day years, totaling 2,520 days. This period of time is generally known as the Tribulation, and the second half, lasting 1,260 days, is called the *Great* Tribulation.

Yahweh is always more precise with His terminology than we are. Case in point: the prophetic "year" used to describe the future history of Israel is never specifically *called* a "year" in Scripture. Daniel calls seven of these units a "seven" (usually translated a "week"), and he uses the term "a time" to describe one of them. He also measures intervals in terms of days. Likewise, John doesn't usually describe events in terms of "years," but sees durations of days, months or "times." So when I use loose terms like "prophetic year," bear in mind that God's Word doesn't actually call it a "year" at all.

There are a surprising number of Tribulation prophecies (concentrated primarily in Daniel and Revelation) that predict events spanning specific time periods, and they're invariably listed as "times" (i.e., 360-day "years"), months, or days. It's clear that Yahweh wants us to know something about the schedule of the Last Days. Therefore, I consider it highly presumptive of my fellow Christians to dismiss the entire subject of prophetic chronology with a shrug and half a verse taken out of context—*No one knows the day or the hour*. This is like any other doctrine in the Bible: we need to pay close attention to what Yahweh actually told us.

The errant date-setting prognosticators listed above had a tendency to lump all the target dates of the Last Days into one nebulous and ill-defined package, calling it things like "the second coming" or the "return of Christ" or the "end of the world." But God's word, like I said, is quite precise in its use of prophetic terminology. I find that many of the misunderstandings concerning God's timing stem from the erroneous idea that the rapture and the Tribulation are somehow linked. The fact is that nowhere in the Bible are they causally or chronologically associated with each other (except for establishing the order of events, of course).

Moreover, I believe that the *only* significant date that God has kept a secret is the year of the rapture. We have been given precise and detailed information about the timing of many other Last Days events, from the commencement of the Tribulation onward—information we can correlate to our own Gregorian calendar. This theory is based on two scriptural principles that are usually overlooked by the majority of Christians. First is God's six-plus-one pattern as embodied in the creation account, the fourth commandment (keeping the Sabbath), and His seven appointed Feasts. Second is the equation of one day with a thousand years, enumerated in both Psalm 90:4 and II Peter 3:8.

I'm convinced there's more here than meets the eye: more than obscure Jewish rituals and tradition, more than Old Testament rules that Christians don't pay much attention to because they think the Law was "nailed to the cross." We ignore God's word at our peril. But who knows? There could be another explanation. I'll present the data. You be the judge. Let's begin with the rapture, since it's a stand-alone event in the prophetic timetable. I covered the subject in detail in chapter 8 of *The End of the Beginning*. The classic passage quoted to delineate our inability to know precisely when Yahshua will return is in the Olivet Discourse. He says, "Now learn this parable from the fig tree: When its branch has already become tender and puts forth leaves, you know that summer is near. So you also, when you see all these things, know that it is near—at the doors! Assuredly, I say to you, this generation will by no means pass away till all these things take place. Heaven and earth will pass away, but My words will by no means pass away." (Matthew 24:32-35)

It seems obvious (at least to me) that this is a wrap-up of the whole discourse that begins in verse 4, speaking of signs preceding the Tribulation, and then what Israel is to do during the "Time of Jacob's Trouble" itself, including being wary of false christs, recognizing the abomination of desolation, subsequently fleeing to the wilderness, seeing His coming in glory at the very end of the Tribulation, and His bringing with Him the elect saints who have been "gathered together...from the four winds, from one end of heaven to the other." (Matthew 24:31) Considering the fact that these events are generally listed in the order they can be expected to happen in Israel's history (much of which will transpire after the church is gone) this "gathering together" speaks not of the rapture, but of a later time when the angels will collect the elect *from heaven*—that is, *not* from the earth, and *not* from sheol (a.k.a. Abraham's Bosom or Paradise), the places from which the saints will be raptured. But it's a perfect picture of what John described in Revelation 19:11-15—King Yahshua returning to the earth, *with His saints*, after the Tribulation has run its course.

I realize verse 31 sounds at first blush like the rapture. But if you think about it, to be "gathered from the four winds" implies that those who are thus assembled *already* have their immortal bodies. Yahshua began this summation by stating that His followers can and will know the general season when all these things will commence. He then flatly states that after the signs begin, no more than one generation (an imprecise term, but clearly implying a time limit not to exceed the age of the oldest living human) will pass before the whole process is finished.

*Only then* does he say, **"But of that day and hour no one knows, not even the angels of heaven, but My Father only."** (Matthew 24:36) Nobody *knows* (a misleading translation, but we'll come back to it) "the day and hour," the precise moment. The day of what? His coming in glory? No, because *that* day is linked to events in the Tribulation, which will begin with a specific sign (the Antichrist's "covenant with many," Daniel 9:27). Once you've seen the sign, you could simply count the days: the Tribulation will run precisely 2,520 days (i.e., 7 x 360, according to the

Daniel 9 prophecy), after which Yahshua will bind Satan and reign in glory for a thousand years (Revelation 20:4). As far as the timing goes, there are no surprises here.

But in the verses immediately following, Yahshua illustrates His comment with an allusion to Noah's flood, saying some would be taken and some would be left. *That* is the defining characteristic of the rapture, the *harpazo* described by Paul in detail in I Corinthians 15:51-58 and again in I Thessalonians 4:13-18. Yahshua punctuates His teaching with a warning to those who might fall asleep on the job: **"Watch, therefore, for you do not know what hour your Lord is coming."** (Matthew 24:42, repeated almost verbatim in 25:13) This admonition applies only to those to whom Yahshua is "Lord," in other words, the Ekklesia, those who are "called out." The unknown day of Matthew 24:36, then, must refer to the rapture of the Church.

The word "know" here is not the Greek *ginosko*, which means to have knowledge of something, in a beginning (i.e., coming to know) or completed sense. *Ginosko* would imply empirical knowledge, becoming aware of a fact through inquiry or experience. Rather, the term used here is *eido*, which means: "to see, literally or figuratively: to be aware, behold, consider, know, look, perceive, see, or understand." Therefore Yahshua is not actually telling his disciples that knowledge of God's timing of the rapture is impossible, only that nobody will see it coming. "As the lightning comes from the east and flashes to the west, so also will the coming of the Son of Man be." (Matthew 24:27) Contrast this with verse 30: "Then the sign of the Son of Man will appear in heaven, and then all the tribes of the earth will mourn, and they will see the Son of Man coming on the clouds of heaven with power and great glory." These events are apparently differentiated. One—the rapture—is as sudden as lightning; the other—Yahshua's coming in glory—is leisurely and majestic, and everyone will see it.

Underscoring His teaching that the master of the house would have been better prepared if he knew what time the thief would come, Yahshua says, "Therefore, you also be ready, for the Son of Man is coming at an hour when you do not expect Him." (Matthew 24:44) This explains why God is keeping the date of the rapture a secret: He doesn't want Satan, the "prince of this world," to know when He's coming to take back what's His. Paul, supporting this metaphor, reminds us that "The day of Yahweh comes as a thief in the night," (I Thessalonians 5:2) that is, surreptitiously and unexpectedly.

A similar illustration is related in Mark's gospel, where Yahshua speaks of a man going on a journey and leaving his affairs in the hands of his servants, who are expected to keep working and stay watchful. The "master" this time is Yahshua, who has been "on His journey" for almost two thousand years now. He says, **"Watch therefore, for you do not know** [*eido*: perceive] when the master of the

house is coming—in the evening, at midnight, at the crowing of the rooster or in the morning—lest, coming suddenly, he find you sleeping. And what I say to you, I say to all: Watch!" (Mark 13:35-37)

I'd say the principle is pretty well established, then. Nobody is aware of nobody perceives—the exact moment Yahshua will return for His people. As hopeful (or merely curious) as we are, that's a good thing, because if this information were available, Satan could create havoc among the faithful. He tries to do that anyway, as we have seen. He doesn't really need reliable information in order to distract us. All he needs is a theory, an idea based on bits of isolated scriptural content, and he can get otherwise serious believers to forget all about feeding Yahshua's sheep. I think we can safely take a lesson from Nehemiah here: all the distractions, the threats, the ridicule, and the violence we endure in God's service must not deter us from continuing to do what He told us to do. We need to *both* work on the wall and keep a sharp lookout.

All that being said, however, there *is* one important Biblical clue to the timing of the rapture—not a specific calendar date, but an annual day of observance, a holy appointment, a convocation, that Yahweh instructed His people to observe throughout their generations. Seven such days populate the Hebrew calendar. As we saw in chapter 3 of *The End of the Beginning*, they are prophetic: four have been fulfilled and three are yet to come. Known as the feasts of Yahweh, these seven holidays tell us a great deal about God's program and prophetic *modus operandi*.

The first, Passover, predicted Yahshua's sacrifice for our sins. It was fulfilled as Yahweh ordained, on Friday, April 1, 33 A.D. The second, the Feast of Unleavened Bread, looked forward to His burial, when our sin (represented by leaven, or yeast) was removed from our lives. It was fulfilled the very next day, on the Sabbath (as required), April 2. The third, the Feast of Firstfruits, celebrates Yahshua's resurrection on the third day: Sunday, April 3. The fourth, the Feast of Weeks (called "Pentecost" because it came fifty days after the Feast of Unleavened Bread) marked the filling of the Ekklesia, the "body of Christ," with His Spirit—Sivan 6 on the Hebrew calendar: Sunday, May 23, 33 A.D. Each one of these appointments was fulfilled in the person of Yahshua or His Spirit on the very date of its Levitical mandate in the year 33. Jews who refuse to see the connection must somehow explain away the seventeen-billion-to-one odds against these things happening by chance on the right dates.

The next holy appointment on the Levitical calendar is the Feast of Trumpets, *Yom Teruah.* "Yahweh spoke to Moses, saying, 'Speak to the children of Israel, saying: In the seventh month, on the first day of the month, you shall have a sabbath-rest, a memorial of blowing of trumpets, a holy convocation. You shall do no customary work on it; and you shall offer an offering made by fire to Yahweh.'" (Leviticus 23:23-25. Numbers 29:1-6

enumerates the sacrifices to be offered on that day.) Note that although the Jews were to be the keepers of these feast days, it is clear from the fulfillment of the previous Feast, Pentecost, that the significance of these holidays would extend beyond Israel to the rest of the world. All seven feasts are described as holy convocations. The Hebrew word for convocation is *miqra*, meaning "something called out, that is, a public meeting, an assembly." Significantly, the word also means "a rehearsal," telling us that these seven convocations were designed to be prophetic of milestones in Yahweh's plan of redemption and in the corporate life of His called-out people.

The only unique thing about this *miqra* is the "blowing of trumpets," conveyed by a single Hebrew word: *teruah*. Baker and Carpenter describe the word thus: "A shout of joy; a shout of alarm, a battle cry. It refers to a loud, sharp shout or cry in general, but it often indicates a shout of joy or victory (I Samuel 4:5-6); a great shout anticipating a coming event (Joshua 6:5, 20). It can refer to the noise of a signal put out by an instrument [especially a *shofar*, or ram's horn trumpet] (Leviticus 23:24; 25:9). Amos used the word to refer to war cries (Amos 1:14; 2:2). The Lord puts shouts of joy into His people (Job 8:21, 33:26)."

Okay, compare that definition with the description of the rapture found in I Thessalonians 4:16-17: "For the Lord Himself will descend from heaven with a shout, with the voice of an archangel, and with the trumpet of God. And the dead in Christ will rise first. Then we who are alive and remain shall be caught up together with them in the clouds to meet the Lord in the air. And thus we shall always be with the Lord." Then look at I Corinthians 15:51-52: "We shall not all sleep [i.e., suffer physical death], but we shall all be changed-in a moment, in the twinkling of an eye, at the last trumpet. For the trumpet will sound, and the dead will be raised incorruptible, and we shall be changed." When Yahweh shouts, when we hear the voice of the archangel, you can be pretty certain that it's a battle cry—He's getting ready to go to war with an unrepentant world. The trumpet of God is a metaphor for the same thing. But here, this trumpet blast or shout of victory—this *teruah*—is said to be the signal for the rapture. The words "caught up" are from the Greek harpazo, from whose Latin vulgate translation (rapiemur) we get the word "rapture." ("Deinde nos qui vivimus qui relinguimur simul rapiemur cum illis in nubibus obviam Domino in aera et sic semper cum Domino erimus," if you must know-I Thessalonians 4:17.) You won't find the word "rapture" in your English Bible, but that doesn't mean it isn't there.

The inescapable conclusion, at least to me, is that the Feast of Trumpets is predictive of the rapture in the same way that Passover is predictive of the crucifixion of Yahshua. And that means, presuming Yahweh doesn't change His *modus operandi* in mid-stream, that the rapture will occur on the very day mandated for the Feast of Trumpets, the first day of Tishri. (Tishri is the seventh month of the Torah calendar that starts in Nisan, the month in which Passover occurs. Depending on where we happen to be in the intercalary cycle, the first of Tishri can fall in either September or October.)

If the rapture is scheduled for some other day of the year (and it should be obvious by now that God is on a schedule), then two things must be explained. First, why has Yahweh neglected to prophetically memorialize what *has* to be one of the most important milestones in the history of His redemption of mankind? And second, what possible fulfillment could He have planned for the Feast of Trumpets that would top the rapture in terms of its significance? Stumped? Me too. The only other trumpets that loom large in prophecy are the seven trumpet judgments of Revelation 8-11, and the first six of these describe a war that can't possibly be confined to one day, the first of Tishri. The sounding of the seventh angel, which *could* be fulfilled in a single day, occurs not on earth, but in heaven. It describes the announcement of the coming of Messiah's kingdom—an event that is fulfilled not in the Feast of Trumpets, but in the Feast of Tabernacles, which comes later in Yahweh's timetable. (Because the seventh trumpet is the "last trump" of the series, some have put two and two together and concluded that the rapture will happen here, at the end of the Tribulation—a position known as the "post-Tribulation rapture." But there are a score of prophetic passages that converge to correct this misconception. See chapter 8 of The End of the Beginning.)

But if the Feast of Trumpets is predictive of the rapture, how could Yahshua say that "No man knows the day or the hour?" Because we *still* don't—we don't know which *year* He has chosen. Besides, as I pointed out in *The End of the Beginning*, there's a cultural factor, completely lost in the translation, that brings new meaning to the phrase "No man knows...." The Jewish observation of the Feast of Trumpets (erroneously referred to as Rosh Hashanah—"head of the year"— because it's the first day of a Jewish "civil" calendar that shouldn't even exist) had by Yahshua's day grown its own traditions and practices—things not necessarily prescribed in the Mosaic Law. The *shofar* is blown, so they say, to confuse the devil on the one day a year he goes before God to accuse the Jews of being bad. (I know it sounds ridiculous, but that's what the legend said.)

That's why this convocation was also known as *Yom Hakeseh*, "the Day of the Hiding." According to Rabbinic tradition, this "Hidden Day" had to be symbolically concealed from Satan so he couldn't do his job. *Yom Hakeseh* introduced an idiom into Jewish speech that was reflected in Yahshua's enigmatic statement. Even though everybody knew that the Feast of Trumpets fell on the first day of Tishri, nobody actually *said so*. They merely observed, tongue in cheek, "Of that day and hour no one knows, only the Father." If only our accuser were so easily confused.

At any rate, in first-century Jewish culture, the Feast of Trumpets was the only day of the year that was characterized as being "hidden." So Yahshua *wasn't* telling us that we were to be blissfully uninformed as to the timing of the rapture. Rather, He was telling us He would "gather His elect" on the Feast of Trumpets in some unspecified future year. There have been almost two thousand Feasts of Trumpets since Yahshua spoke those words. Theoretically, He could have returned for His Ekklesia on any one of them (especially one that fell naturally on a Sabbath—see Leviticus 23:24). But He didn't. I'm pretty sure we would have noticed.

That leaves a rapidly shrinking list of dates from which Yahshua could choose. Not only is the proverbial "fig tree" sprouting leaves like crazy, I'm convinced that he *has* given us the very date when He will begin His Millennial reign. If we start from that date, subtract seven years (i.e., 2,520 days) for the Tribulation, and perhaps take off a couple more years for a gap that will almost certainly (due to prophetic requirements) fall between the rapture and the beginning of the Tribulation, one of the Feasts of Trumpets between now and then will coincide with the rapture. As of this writing, we have fewer than a dozen possible dates left.

By the way, there is one wild-card factor that could have a bearing on all the dates alluded to in this appendix. Everything is based on the calculations of modern Hebrew scholars whose task is to correlate our Gregorian calendar with theirs. Although I have no reason to doubt their conclusions, since they're based on the phases of the moon and simple mathematics, it is nevertheless possible that they're off. (After all, they have been known to tweak things to compensate for "Ha-Shem's" perceived shortcomings. It would be funny if it weren't so sad.) If they're off, I'll be off as well. Yahweh, however, is guaranteed to be right on schedule—*His* schedule.

Yahweh's annual prophetic calendar tells an incredibly beautiful story of His love for us and the lengths He was willing to go to save us from ourselves. The rapture will be an exciting episode. But it's not the final chapter.

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After reading the list of loonies at the beginning of this appendix who thought they knew the date Christ would return, I'm hesitant to bring up the next subject. Why? Because it puts me in the same boat with them. I'm about to tell you the precise date when Yahshua will return to earth to rule in glory. Good grief, I can't believe I'm doing this. On the other hand, I'm not the only one to have noticed certain principles in scripture that seem to point to this very thing, though no one else to my knowledge has actually done the math, or has been crazy enough to tell anybody about what they found. What keeps going through my head is: God told us these things for a reason, and nobody has ever satisfactorily explained what that reason is. I may be crazy, but I just might be right. And if I *am* right, I would be wrong to withhold the information from you, wouldn't I?

Also, to be perfectly candid with you, the date is far enough off that I expect to be gone (one way or another) by the time it rolls around. I'm already way too old for a mid-life crisis. At least if I'm wrong, I won't have to listen to all you Monday morning quarterbacks telling me how badly I blew it. Convenient, huh?

I need to stress that I wasn't looking for this information when I began my prophecy study. I was happy not knowing. But as I studied, it presented itself no, let me rephrase that—it jumped up and grabbed me by the ears and said *Hey*. look at this, dummy! I'm not smart enough to figure this out on my own; I'm praying that it was the guidance of the Holy Spirit. After all, He clearly predicted that as the end approached, we would see things more clearly than our forebears did. "But you, Daniel, shut up the words, and seal the book until the time of the end; many shall run to and fro, and knowledge shall increase." (Daniel 12:4) At the moment, the amount of data available to us is doubling every five years. "The anger of Yahweh will not turn back until He has executed and performed the thoughts of His heart. In the latter days you will understand it perfectly." (Jeremiah 23:20) I've got nothing to gain if I'm right, no books to sell or anything like that. I'm not trying to gather a following, or even convince people I'm right. But because I expect the rapture to take place quite a few years before the ultimate coming of Yahshua, the things I've discovered, if not lost to Internet posterity, might be of some benefit to those left behind. And believe me, the Tribulation saints are going to need all the help they can get. Knowing when it will all be over-how long they have to hang oncould be useful information indeed.

The specific Biblical principle that led me to start looking at dates was Yahweh's ubiquitous six-plus-one pattern. It's everywhere you look, especially in the Old Covenant scriptures where God was laying the foundations for everything else. We start with creation itself: it was described in Genesis 2:2 as six days of "work" followed by one day of "rest." The creation week was mirrored in the ten commandments as the Law of the Sabbath: again, six days to work, one to rest. Yahweh was really serious about it, too, so serious in fact that He instructed the Israelites to execute any of their number who worked his regular job on the seventh day. Exodus 31:13 explains it, sort of: "Surely My Sabbaths you shall keep, for it is a sign between Me and you throughout your generations, that you may know that I am Yahweh who sanctifies you." The same passage describes it as being a "perpetual **covenant**" between Yahweh and the Jews, something that was to be "**a sign between Me and the children of Israel forever.**" (verses 16, 17) There was more to this Sabbath thing than merely wanting to give these former slaves a day off once in a while.

But if it was a sign, what did it signify? Like the creation itself, there were to be six days of one thing, followed by one of another. The units of time specified weren't always days, either: a third permutation of this principle was seen in the Sabbatical year: "When you come into the land which I give you, then the land shall keep a sabbath to Yahweh. Six years you shall sow your field, and six years you shall prune your vineyard, and gather its fruit; but in the seventh year there shall be a sabbath of solemn rest for the land, a sabbath to Yahweh. You shall neither sow your field nor prune your vineyard." (Leviticus 25:2-4) The same sign given to men applied as well to the very earth: six years of "work" and one of "rest." The passage goes on to describe the Jubilee, an additional Sabbath intermission at the end of the seventh septade, or seven-year period—i.e., once every fifty years.

The recurring theme that's emerging seems to boil down to this: following God's example, we should work to provide for our needs and those of our loved ones. This is a good thing; it's what God wants us to do in this present world. But there will come a time when such work will no longer be necessary, or even proper. Why? Because Yahweh wishes to supply all our needs directly—the gift of a loving Father to His kids. Perhaps it's His way of giving His children an inheritance upon coming of age and completing our education.

Receiving the gift. That's what it's all about, isn't it? We can't work for it, for if we did, it would no longer be a gift, only a payment received for a job performed (and let's face it—none of us perform all that well). Put yourself in God's shoes for a moment. No, that's a bit beyond our ability to visualize. How about imagining yourself in Bill Gates' Gucci loafers. The Microsoft billionaire has three kids, and I have no doubt that he loves them dearly. Now let's imagine that he has a trust fund set up for them, let's say, a hundred million dollars each, payable upon graduation from college. That would be some incentive to finish school, wouldn't it? How would Bill feel, however, if upon graduation one of his kids told him, *I don't want your money. I have my pride: I want to earn my own fortune. So I'm getting a job in the mailroom. Over at Linux.* Would he feel proud that his kid was showing initiative? Maybe, but I think it's far more likely that he'd just feel hurt—he'd long for the days when a simple gift of a three-dollar toy would have been met with an excited hug and genuine thankfulness.

Okay, back to reality: God's gift to us is eternal life—all we have to do is accept it, and upon "graduation" from this mortal life, it's ours. As in our illustration, our inheritance is secure; it's just sitting there in the bank waiting for us. In comparison, though, Bill's hundred million bucks is a pittance; Yahweh's gift of eternal life was far more expensive. Incredibly though, most of the world looks at it, yawns, and tells God to take His gift and shove it.

In our illustration the gift had a timetable, and I believe God's gift does too. My purpose here is to reveal this schedule. Our key is the six-plus-one pattern. Yahweh is practically screaming to us that we are to work and learn and live our lives as mortal humans for six "time units" (of some specific duration) and that at the end of that period, there will be one more "time unit" in which we will receive our inheritance—the first installment, anyway. (Remember, Bill's kids' awesome graduation gift is understood to be only a token or down payment of their *real* inheritance: when I last looked, Bill was worth over \$70 billion, and when he dies, he won't take a penny of it with him.)

What, then, are these "time units" that God's clock is ticking off? We shouldn't be too surprised to find the answer in scripture. "Beloved, do not forget this one thing, that with Yahweh one day is as a thousand years, and a thousand years as one day. Yahweh is not slack concerning His promise, as some count slackness, but is longsuffering toward us, not willing that any should perish but that all should come to repentance." (II Peter 3:8-9) Because of what follows the "formula," most of us gloss over the significance of the formula itself. Peter's primary point (and an extremely important one) is that Yahweh is patient with us. But not even Peter (I'm guessing) perceived the full implication of what the Holy Spirit revealed to us through his phrase, "With Yahweh one day is as a thousand years, and a thousand years as one day." As a matter of fact, he unwittingly (perhaps) confirms in the very next sentence that God has a schedule to keep: "Yahweh is not slack concerning His promise." No, He's not at all slack. He's running a very tight ship, precisely on time. He will come when He said He'd come, not a moment sooner or later—whether or not we have taken the time to read His itinerary.

The thousand-years-equals-one-day formula is confirmed by comparing the creation account to the first-century advent of the Messiah in light of an obscure prophecy from Malachi. In Genesis 1:14-19, the sun was listed among God's accomplishments on the fourth "day"—*after* plant life. Since this is obviously impossible, we (or at least I) explain it in terms of visibility—the sun, moon, and stars were obscured by the atmospheric conditions on earth until the fourth day. But this begs the question: why did Yahweh relate the creation story in such a convoluted way—why did He list the coming of the sun on the fourth day? It's because He planned, even then, for His Messiah to come during the fourth thousand-year period. **"To you who fear My name the Sun of Righteousness shall arise with healing in His wings."** (Malachi 4:2) The Messianic "Sun" became visible during the fourth day—the fourth millennium. As a matter of fact, if Yahshua's coming had been delayed for a few years, the "healing in His wings" (literally fulfilled in Luke 8:42-45—the "wings" are the borders, or *tsitzit*, of His garment),

would have been pushed over into the fifth millennium. Yahweh's timing, once again, is flawless.

The six-plus-one time unit, then, is one thousand years. But when are we supposed to start counting? At the beginning, of course. Not the beginning of creation, but the beginning of man's need for a savior. The whole point of this six-plus-one plan is the redemption of mankind.

Early in the 17th century, Irish bishop James Ussher added up all the dates provided by the Biblical genealogies, correlated them to known historical events, and came up with a date for the beginning of creation (including the six days, of course) of Sunday, October 23, 4004 B.C. (actually, sundown of the preceding day, which would have been reckoned by the Hebrews as the beginning of the first day of the week). Pioneering astronomer Johannes Kepler (1571-1630), the man who formulated the laws of planetary motion, calculated a creation date of 3992 B.C. I'm not asking you to choose between them, you understand. I merely want to point out that the history of man as recorded in the scriptures only goes back about 6,000 years. We really can't be sure, because we haven't been given all the details needed to establish a complete chronology. Complicating matters, textual discrepancies among the oldest extant manuscripts make the data impossible to pin down with certainty. In addition, it's quite possible that there are gaps in the genealogies, and some sequences of events may be concurrent rather than consecutive. For these reasons, I'd consider any date we have before the time of David—about 1000 B.C.—questionable.

Be that as it may, notice that Ussher and Kepler were adding up genealogical data; what they were actually calculating was not the creation of the universe but the fall of Adam, the first man with a God-breathed spirit. I am convinced that Yahweh intended the creation/Sabbath six-plus-one format to be a picture of the unfolding history of mankind's redemption—the tenure of fallen man upon the earth, from beginning to end. If you think I'm wrong about that, then you need to satisfactorily answer the question, what *did* He mean by it? Why did He reiterate this pattern time and again? Did the God who so carefully orchestrated His holy feasts to be fulfilled by His Messiah on the very days of their historic observance—fifteen hundred years after they were mandated—formulate the Sabbath law on a pointless whim? I think not. The cycle of sevens is so ubiquitous in scripture, the significance of the pattern surely must be of the utmost importance.

That is why I am of the firm opinion, although scripture doesn't say it in so many words, that God's six-plus-one pattern indicates that He has ordained only six thousand years in which man is to live and labor upon this planet in our current condition. We are fallen creatures, separated from God by our sin, but blessed with the ability to choose to accept His gift of eternal life. Choice, in fact, *is* our work; it is what we were put here to do: **"They said to Him, 'What shall we do, that we may work the works of God?' Jesus answered and said to them, 'This is the work of God, that you believe in Him whom He sent.'" (John 6:28-29) According to the creation/Sabbath pattern (not to mention overt prophecy), this six-thousand-year period in which our "work" is learning to rely on Yahweh will be followed by a seventh millennium in which God will honor the choices we made in the previous age: to love Him or reject Him, to trust in Him or something else, to live or die—to thankfully accept dad's hundred million dollar graduation gift, or go to work in His competitor's mailroom.** 

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Presuming you're willing to concede the point then, let's move on to the next question—Is there any way to pinpoint precisely when the six thousand years of man's fallen state will come to an end? I believe there is. This is where the vast majority of theologians would part company with me, and I will admit right up front that I'm drawing a conclusion that is not overtly spelled out anywhere in scripture. But the hints are plentiful indeed, and the "theory" (if that's all it is) explains a lot about what otherwise might be construed as pointless scriptural rambling. So hear me out. You may find merit in my observations.

Each millennium in God's seven-thousand-year plan has been or will be marked by a significant event—something that illustrates either the need for our salvation or Yahweh's work in providing it. Let's begin at the beginning. Our starting point is Adam's fall into sin. This was the event that made the whole plan of redemption necessary, for by inheriting Adam's sinful nature, all of us have "fallen short of the glory of God." The clock started ticking with that first disobedient little nibble of forbidden fruit.

The precise dates of the first three milestones are impossible to verify through historical or archaeological methods but the ballparks are intriguing, to say the least. Milestone number one came at the time of Noah, a millennium after Adam's sin. If you add up the generations between Adam and the flood as presented in our English translations (based on the Masoretic texts), you wind up several hundred years off, though I'm told the Samaritan Pentateuch comes out on the money. Like I said, dates this far back are automatically suspect—for half a dozen reasons—and numerical data is more susceptible to errors in transmission than anything other kind.

Because of the wickedness of mankind, Yahweh opted to destroy our race, saving only a small remnant of humanity—Noah and his immediate family. God told Him, **"Behold, I Myself am bringing floodwaters on the earth, to destroy from under** 

heaven all flesh in which is the breath [Hebrew: *ruach*—spirit] of life; everything that is on the earth ['erets—land, soil, country, or the surface of the earth] shall die." (Genesis 6:17) Our Sunday School traditions notwithstanding, note that according to the actual words used in the scriptural record, a worldwide deluge submerging the highest peaks on the planet is *not* required, nor is the death of every living thing on earth implied. Rather, God's objective was "only" the destruction of every human being indwelled with an immortal spirit (which is not to say a horrendous amount of collateral damage wasn't inflicted upon the biosphere). This leads me to the conclusion that demonic spirits had taken up residence in the vast majority of the *neshamah*-equipped human race. As horrible as that sounds, please recall that this scenario will be repeated during the Last Days, when the whole world will follow the beast (the Antichrist) and the dragon who empowers him (Satan), while the belated followers of Christ (those who missed the rapture) will be slaughtered by the millions, powerless to stem the tide of evil.

Yahshua noted the ignorance, apostasy, and indifference to the will of Yahweh during Noah's time, comparing it to the demon dominated Last Days, saying "As the days of Noah were, so also will the coming of the Son of Man be. For as in the days before the flood, they were eating and drinking, marrying and giving in marriage, until the day that Noah entered the ark, and did not know until the flood came and took them all away, so also will the coming of the Son of Man be." (Matthew 24:37-39) I believe the reason Yahweh was happy to let us "read into" the flood account a universal deluge (even if it *wasn't*) is that it was intended to be a warning of the devastation the world will suffer during the Tribulation. When it's all over, no one will be left standing on earth who doesn't honor the true and living God.

Milestone number two falls about the time of Abraham, though again, the dates are still a matter of conjecture this early—the scholars don't agree on the precise timing of the patriarch's life. The date we're looking for is 1967 B.C. (The reason for this will become apparent in a moment.) Abraham was an old guy by this time, that much is clear. I found two independent chronologies that said this may be the date that Isaac was miraculously conceived. Significant enough, I suppose—but I'd like to suggest that it was actually the date of Abraham's almost-sacrifice of his promised son on the mountains of Moriah—at the very spot where Yahshua, the Lamb of God, would be offered up for the sins of the world *precisely two thousand years later*. (Just one misreading of one number in the tens place somewhere during the years of textual transmission is all that it would take to account for the discrepancy.) It is here that we see the poetry of the millennial milestones beginning to emerge.

Like the flood of Noah, the near-sacrifice of Isaac was intended to be a dress rehearsal of a much more significant event that would take place in the very same place, exactly two thousand years later. And as I said, each of these millennial milestones, beginning with Adam's fall, are events that mark either the need for our reconciliation with our God, or His response to that need. The fact that five of them (five being the number of grace) would take place at Mount Moriah—i.e., in what would become the city of Jerusalem—is a factor that also begs us to heed the emerging pattern. To my mind, this *can't* be mere coincidence.

The third milestone falls in 967 B.C. Again we see Mount Moriah in Jerusalem playing a central role, for it was in this year that Solomon began construction of the temple. This event is a logical bridge between the dress rehearsal played out between Abraham and Isaac a thousand years before and the "final performance" played out between Yahweh and His Messiah precisely a thousand years later. The temple, of course, is significant because it is the very picture of our redemption—from the altar standing outside to the Ark of the Covenant in the Holy of Holies, upon which the blood of atonement was sprinkled. Every detail of its design and construction, its furnishings and its service, pointed unequivocally toward the mission of Yahweh's Messiah.

Milestone number four (i.e., the conclusion of millennium number four remember Malachi 4:2) is the passion of the Christ. If there is one event critical to our redemption, this is it. The entire Old Testament looks forward to this moment. Every word of the New Testament is built upon it. The first three Feasts of Yahweh were fulfilled at this time, and the pivotal prophecy pinpointing the advent of the Messiah—recorded in Daniel 9:25-26—came to pass this very week. The year? 33 A.D.—exactly one thousand years after the building of the temple, two thousand years after Abraham's rehearsal of Yahweh's sacrifice, three thousand years after God demonstrated His willingness to separate good from evil on the earth, and four thousand after Adam's sin made the whole exercise necessary. Again, the central events of this milestone took place on Mount Moriah, in Jerusalem.

Milestone number five fell in 1033 A.D., right smack in the middle of the "Church age." Remember the inventory of errant apocalyptic dates I listed at the beginning of this appendix? One of them caught my eye as being "close, but no cigar." 1033 was "cited as the beginning of the millennium because it marked 1,000 years since Christ's crucifixion." Ooooh, they were so close! They recognized (perhaps) that there were millennial markers of which we should be cognizant, and that the most important marker of all was 33 A.D., the year of Messiah's sacrifice. At the same time, these believers failed to perceive Yahweh's rule of seven: six days of work, one of rest: 1033 was only mile marker number five.

They also missed the fact that the Millennium wouldn't start until after the Tribulation, and the Tribulation wouldn't commence until after the Ekklesia had been "caught up" to be with their savior in the air—the rapture. But I, for one, am

willing to cut the 1033 theorists some slack here. They were doing what they were supposed to be doing: watching expectantly for the return of the King. It's not really their fault that they got some of the details wrong. From that distance, they couldn't even *see* the "fig trees" (Matthew 24:32)—all they could perceive was a brown blur on the hillside. Nowadays, it's just the opposite: we can't seem to see the forest for the trees—the fig leaves are sprouting out all over the place, and we're so close to the forest we can count the buds on the branches.

So what was going on in 1033? The fulfillment of the prophetic letter to Thyatira was going on. "These things says the Son of God, who has eyes like a flame of fire, and His feet like fine brass: I know your works, love, service, faith, and your patience; and as for your works, the last are more than the first. Nevertheless I have a few things against you, because you allow that woman Jezebel, who calls herself a prophetess, to teach and seduce My servants to commit sexual immorality and eat things sacrificed to idols. And I gave her time to repent of her sexual immorality, and she did not repent. Indeed I will cast her into a sickbed, and those who commit adultery with her into great tribulation, unless they repent of their deeds. I will kill her children with death, and all the churches shall know that I am He who searches the minds and hearts. And I will give to each one of you according to your works." (Revelation 2:18-23) The Church had grown rich and powerful—and sick. 720 years earlier, Constantine's Edict of Milan had made "Christianity" the state religion of Rome—creating an adulterous liaison between pagan practice and Christian worship. Now the children of that evil union had grown up and taken over the family business.

In 1033, the papal throne was assumed (okay, *bought*) by Benedict IX, arguably the worst in a long line of excrementitious popes. This murderous bisexual pontiff practiced witchcraft, necromancy, bestiality, and Satanism while running what one contemporary critic called "the best brothel in Rome." The Roman Catholic Church had hit a new low, and that was sayin' something. The church, however, was still unified. (It would split forever into warring factions before Benedict's untimely death in 1055.) This was united Christianity's last chance to repent, and we blew it. Never was the need for our redemption quite so obvious.

But the church hitting rock bottom is pretty generalized, as these signs go. The rest of the millennial milestones are far more specific—and symbolic. Besides, the leadership of the faithful, whether in Christian culture or Judaic, had never been a fair barometer of the true state of Yahweh's relationship with His people. Even in idolatrous Thyatira, there were those whose **"works, love, service, faith, and patience"** were commended by Christ. But something happened in 1033 that revealed just how far gone the household of faith was. And God gave us all a wake-up call that had been foretold back in the Torah, if only we had been alert enough to recognize it.

Since 1033 was the millennium of the Passion of the Christ, faithful pilgrims in droves set out to visit the Holy Land. These weren't crusades, mind you: they weren't going in order to wage a land grab in the guise of "holy war" against the Muslim occupiers—something that was never authorized by God. They merely wanted to walk where their Messiah had walked. It's a pilgrimage I myself have made, a sweet memory of mine, still vivid years later. But in 1033, a good-sized earthquake shook the city of Jerusalem—not an unusual occurrence, since it sits in an area riddled with seismic fault lines. One result of this one, however, was that the Spring of Gihon—the sole water source for the City of David and the adjacent Kidron Valley, situated in the shadow of the temple mount—was rendered septic, and this noxious condition persisted for forty years. This was taken as a bad sign by the Rabbis at the Jerusalem Academy, so they left town and set up shop in Damascus. The Islamic overlords then raised the *jizyah* taxes for all non-Muslims (*dhimmis*), driving the last remaining Jewish farmers out of the area. And the Catholic pilgrims, like the departing Jews, found the waters of Gihon unfit to drink, in effect taking Jerusalem off of the pilgrim itinerary.

So far, this all sounds like an interesting coincidence, but there's more to it. In Numbers 5:11-31, there's an obscure precept for determining the guilt or innocence of a woman suspected by her husband of infidelity. The jealous husband was to bring her before the priest with an "offering of remembrance" of barley meal, *without* the customary olive oil (representing the Holy Spirit) or frankincense (symbolic of purity through sacrifice). It's an exceedingly odd sounding procedure. The priest was to take dust from the floor of the sanctuary, dissolve it into "holy water" in an earthen vessel, and make the woman swear her innocence. She would then drink the water. If she was guilty of being unfaithful to her husband, her "belly would swell and her thigh would rot," but if she were innocent, she could be blessed with children. (Of course, if she were innocent, she would probably never willingly share her husband's bed again-a man would have to be *positive* of his wife's infidelity, and be angry enough to see her painfully punished, to invoke the Numbers 5 test. For any normal man, it's the original lose-lose proposition.) So not surprisingly, once we leave Numbers 5, we never see or hear this precept being referred to or brought to bear in scripture.

Why, then, is it there in the Torah? It's because Yahweh knew that in 1033, as the fifth millennial milestone, He Himself would have to demonstrate (once again) that the human race—even (or should I say, *especially*) those who considered themselves "married" to Him, the Catholic Church and the rabbinical Judaism—were actually unfaithful and idolatrous religious whores, in need of His healing, forgiveness, and redemption. The earthquake literally mingled the "dust from the floor of the sanctuary" (in this case, the temple mount) with the only water there was to drink. There was no purity in evidence, and the Holy Spirit was nowhere to be found. As a result, not only did the Jews' "belly swell and thigh

rot" (so to speak), but the prophecy concerning the Church of Thyatira had come about as well: **"Indeed, I will cast her into a sickbed, and those who commit adultery with her into great tribulation, unless they repent of their deeds.**" (Revelation 2:22) The beginning of the sixth millennium of fallen man, 1033, was thus characterized by spiritual adultery on the part of both Yahweh's "wife" Israel and Yahshua's "bride," the church. God had made His point. The need for Yahweh's salvation was never more crucial—or more obvious.

At this point, I must reiterate that God never specifically told us to "Find the most significant year in history and calculate the schedule of My grand plan from this point." All He did is lay heavy-handed hints throughout scripture, clues to a mystery that He didn't expressly command us to solve, clues like: **"Remember the Sabbath day, to keep it holy. Six days you shall labor and do all your work, but the seventh day is the Sabbath of Yahweh your God. In it you shall do no work... For in six days Yahweh made the heavens and the earth, the sea, and all that is in them, and rested the seventh day. Therefore Yahweh blessed the Sabbath day and hallowed it [set it apart from the others]." (Exodus 20:8-11) God** *didn't* **make the "heavens and the earth" in six 24-hour earth days, so it is incumbent upon us to ponder why He presented the creation story to us in such a symbolically pregnant manner.** 

Add to that: "With Yahweh one day is as a thousand years, and a thousand years as one day. Yahweh is not slack concerning his promise, as some count slackness, but is longsuffering toward us, not willing that any should perish but that all should come to repentance." (II Peter 3:8, 9) Moses phrased the same truth like this: "For a thousand years in Your sight are like yesterday when it is past, and like a watch in the night." (Psalm 90:4) Not only is a single day equated to a thousand years, the "watch in the night" comment tells us that God is on a pre-set schedule: when our assigned "shift" is over, He'll take over once again. The timing has been part of the plan from the very beginning.

Next, consider what Hosea reported about the timing of Israel's restoration: "Come, and let us [Israel] return to Yahweh; For He has torn, but He will heal us; He has stricken, but He will bind us up. After two days He will revive us; On the third day He will raise us up, that we may live in His sight." (Hosea 6:1-2) Two *days*? The third *day*? From when? From 33 A.D., when Israel abandoned Yahweh by formally rejecting His Messiah. Yahweh has painted a picture that's impossible to misconstrue. After "two days" (i.e. *two thousand years* of "tearing" and "striking") Yahweh will revive Israel; and on the "third day" (the thousand-year period following the first two), Israel will be "raised up," and will "live in His sight." That twothousand-year marker is practically upon us. Israel is already back in the Land, but their wounds haven't yet been dressed; they haven't yet been "revived" or "raised up" to Yahweh's satisfaction. Don't assume they won't be, just because it hasn't happened yet. We have but one millennial milestone left to go. Because it's yet future, we need to consult Scripture to establish it's nature and purpose. It's timing, however, is predetermined: the seventh millennium must begin in 2033—a mere two decades off as I write these words, and within the natural life spans of the vast majority of those reading them.

John described what is to happen as Hosea's "third day" commences: "And I saw thrones, and they sat on them, and judgment was committed to them. Then I saw the souls of those who had been beheaded for their witness to Jesus and for the word of God...And they lived and reigned with Christ for a thousand years." That is, the seventh and last millennium of fallen man—the one that corresponds to Yahweh's "day of rest," the Sabbath. "But the rest of the dead did not live again until the thousand years were finished. This is the first resurrection. Blessed and holy is he who has part in the first resurrection. Over such the second death has no power, but they shall be priests of God and of Christ, and shall reign with Him a thousand years." (Revelation 20:4-6) Living and reigning are not the normal activities you'd expect from people who have been beheaded for their witness. Clearly, the seventh Millennium, with Christ Himself on the throne, will not be business as usual.

Are you still willing to settle for a shrug and knee-jerk recitation of "No man knows the day or the hour?" Do you still believe that Yahweh doesn't want you to know anything about His chronological intentions? Are these *special* scriptures—ones we're *not* supposed to ponder and scrutinize? I find the evidence to the contrary overwhelming. I'll grant you that during the bulk of the "Church age" prophetic chronology was way down the line in order of doctrinal importance. But as the Last Days descend upon us, this study will gain significance—and it will be a matter of life and death to those who don't find Christ until after the rapture.

What biblically prophesied event, then, kicks off the seventh millennium? We can rule out the rapture immediately, because as we know, **"Of that day and hour no one knows, not even the angels of heaven, but My Father only."** (Matthew 24:36) As we have seen, the rapture is predicted by the Feast of Trumpets—therefore, if we knew the year, we *would* know "the day and the hour." Or looking at it from another angle, the last seven years of the Daniel 9:24-27 prophecy predicts Israel's restoration—not the Church's temporal triumph over evil (as is so often errantly preached). The Ekklesia (the Philadelphia profile, anyway) is nowhere to be seen during this time; the only logical conclusion we can draw is that the rapture has already taken place when Daniel's seventieth septade begins—perhaps several years before.

But we're on the right track. After the fifth *miqra*, the Feast of Trumpets (prophetic of the rapture), there will still be two holy convocations left to be fulfilled. The "Feasts of Yahweh" are (if the first four were any indication) prophetic of the seven most momentous events in the unfolding of God's

redemptive plan—fulfilled in their Levitical order. It's only reasonable that the most significant of the millennial milestones—the one that begins the long-awaited "day of rest," would be memorialized as one of these celebrations.

But of these last two "Feasts," the next one in line after *Yom Teruah* isn't really a feast at all, but a solemn convocation, a day of national mourning for Israel. Here's how it's described in the Torah: "The tenth day of this seventh month shall be the Day of Atonement. It shall be a holy convocation for you; you shall afflict your souls and offer an offering made by fire to Yahweh. And you shall do no work on that same day, for it is the Day of Atonement, to make atonement for you before Yahweh your God. For any person who is not afflicted in soul on that same day shall be cut off from his people." (Leviticus 23:26-29) The characteristic feature of this *miqra* is the "affliction of the soul." Everybody's supposed to be mournful and introspective on this day. Why? Because of what it prophesies.

Zechariah explains: "And I will pour on the house of David and on the inhabitants of Jerusalem the Spirit of grace and supplication; then they will look on Me whom they pierced. Yes, they will mourn for Him as one mourns for his only son, and grieve for Him as one grieves for a firstborn. In that day there shall be a great mourning in Jerusalem, like the mourning at Hadad Rimmon in the plain of Megiddo [when Israel mourned the death of King Josiah]. And the land shall mourn, every family by itself...all the families that remain, every family by itself, and their wives by themselves." (Zechariah 12:10-12,14) The Day of Atonement (*Yom Kippurim*) predicts the day when Israel will witness the return of Yahshua—the One they "pierced" in crucifixion—coming back to the earth in royal splendor. Zechariah speaks specifically of Jerusalem here, for this will transpire upon the Mount of Olives, just east of the temple mount. The event will be followed in short order by the Battle of Armageddon, so it's pretty obvious that the Day of Atonement doesn't in itself usher in a thousand-year "day of rest."

However, five days later on the Hebrew calendar—*after* the Battle of Armageddon—the last convocation—the Feast of Tabernacles—is scheduled. The last three convocations, by the way, come in the autumn: collectively, they're known as the "Fall Feasts." Trumpets is on the first day of the month of Tishri, which falls in our September or October (depending on where we happen to be in the intercalary cycle). *Yom Kippurim*, a.k.a. the Day of Atonement, falls on the tenth, and our final *miqra*, the Feast of Tabernacles, comes on the fifteenth day of Tishri. In real time prophetic fulfillment, it's evident that the Feast of Trumpets, to be fulfilled in the rapture of the Church, will fall *at least* seven years—perhaps much longer—before the last two Feasts. But I believe that both the definitive Day of Atonement and the Feast of Tabernacles will occur five days apart in the same year—2033. The timing aspects of this Feast were prescribed as follows: "The fifteenth day of this seventh month [Tishri] shall be the Feast of Tabernacles for seven days to Yahweh. On the first day there shall be a holy convocation. You shall do no customary work on it. For seven days you shall offer an offering made by fire to Yahweh. On the eighth day you shall have a holy convocation, and you shall offer an offering made by fire to Yahweh. It is a sacred assembly, and you shall do no customary work on it.... When you have gathered in the fruit of the land, you shall keep the feast of Yahweh for seven days; on the first day there shall be a sabbath-rest, and on the eighth day a sabbath-rest. And you shall take for yourselves on the first day the fruit of beautiful trees, branches of palm trees, the boughs of leafy trees, and willows of the brook." I have explained elsewhere that these four "kinds" of trees symbolically represent those who will populate the Millennial Kingdom—beginning with Christ Himself. "And you shall rejoice before Yahweh your God for seven days. You shall keep it as a feast to Yahweh for seven days in the year. It shall be a statute forever in your generations. You shall celebrate it in the seventh month. You shall dwell in booths for seven days." (Leviticus 23:34-36, 39-42)

Put into our vernacular, Yahweh was telling his people to camp out in the backyard and have a week-long party—a huge barbeque. He Himself was to be the Guest of Honor, so to speak. In marked contrast to the Day of Atonement, when they were instructed to "afflict their souls," mourning over their nation's past rejection of their Messiah and responding to His final plea for repentance (it's the same word in Hebrew: *anah*), now they were to "rejoice before Yahweh their God for seven days." Why do you suppose Yahweh would want people to build palm-frond booths, temporary shelters to live in for a week when they had perfectly good homes they could stay in? As usual, it's a picture, a metaphor, for something He was planning to accomplish in their presence. In this case, it's a picture of Yahweh Himself leaving heaven behind and camping out among men.

It would seem that the Feast of Tabernacles will have two fulfillments, reflecting the two advents of Yahshua. Many Christians today realize that Yahshua wasn't actually born in late December, but since the Gospel record doesn't overtly give us a date, we're left to piece together the clues. Note that since the birth of Yahshua as fulfilled in the Feast of Tabernacles came out of order in the Levitical program, it can't be the final realization of the Feast, but rather should be viewed as a precursor or partial accomplishment of the prophecy. Chuck Misler, in his informative online newsletter K-House News, offers the following insightful analysis:

"Most serious Bible students realize that Jesus was probably not born on December 25th. The shepherds had their flocks in open fields, which implies a date prior to October. Furthermore, no competent Roman administrator would require registration involving travel during the season when Judea was generally impassable.

"If Jesus wasn't born on December 25, just when was he born? Although the Bible doesn't explicitly identify the birthday of our Lord, many scholars have developed diverse opinions as to the likely birthday of Jesus.

"The early Christian church did not celebrate Jesus' birth, and therefore the exact date was not preserved in festivals. [Actually, being Jews, they *did* celebrate it with a festival, as we shall soon see. Whether or not they realized this was Yahshua's birthday remains a matter of conjecture.] The first recorded mention of December 25th is in the Calendar of Philocalus (AD 354), which assumed Jesus' birth to be Friday, December 25th, AD 1. This was subsequent to Constantine's Edict of Toleration in AD 313, which officially ended the government-sanctioned persecution of the Christians. The date of December 25th, which was officially proclaimed by the church fathers in AD 440, was actually a vestige of the Roman holiday of Saturnalia, observed near the winter solstice, which itself was among the many pagan traditions inherited from the earlier Babylonian priesthood.

"The year of Jesus' birth is broadly accepted as 4 BC, primarily from erroneous conclusions derived from Josephus' recording of an eclipse, assumed to be on March 13, 4 BC, "shortly before Herod died." There are a number of problems with this in addition to the fact that it was more likely the eclipse occurred on December 29, 1 BC. Considerable time elapsed between Jesus' birth and Herod's death since the family fled to Egypt to escape Herod's edict and they didn't return until after Herod's death. Furthermore, Herod died on January 14, 1 BC. Tertullian (born about 160 AD) stated that Augustus began to rule 41 years before the birth of Jesus and died 15 years after that event. Augustus died on August 19, 14 AD, placing Jesus' birth at 2 BC. Tertullian also notes that Jesus was born 28 years after the death of Cleopatra in 30 BC, which is consistent with a date of 2 BC. Irenaeus, born about a century after Jesus, also notes that the Lord was born in the 41st year of the reign of Augustus. Since Augustus began his reign in the autumn of 43 BC, this also appears to substantiate the birth in 2 BC. Eusebius (264-340 AD), the 'Father of Church History,' ascribes it to the 42nd year of the reign of Augustus and the 28th from the subjection of Egypt on the death of Anthony and Cleopatra. The 42nd year of Augustus ran from the autumn of 2 BC to the autumn of 1 BC. The subjugation of Egypt into the Roman Empire occurred in the autumn of 30 BC. The 28th year extended from the autumn of 3 BC to the autumn of 2 BC. The only date that would meet both of these constraints would be the autumn of 2 BC.

"Another approach in determining the date of Jesus' birth is from information about John the Baptist. Elizabeth, John's mother, was a cousin of Mary and the wife of a priest named Zacharias who was of the 'course' of Abijah (Priests were divided into 24 courses and each course officiated in the Temple for one week [at a time, twice a year], from Sabbath to Sabbath). When the Temple was destroyed by Titus on August 5, 70 AD, the first course of priests had just taken office. Since the course of Abijah was the eighth course, we can track backwards and determine that Zacharias would have ended his duties on July 13, 3 BC. If the birth of John took place 280 days later, it would have been on April 19-20, 2 BC (precisely on Passover of that year). John began his ministry in the 15th year of Tiberius Caesar. The minimum age for the ministry was 30. As Augustus died on August 19, 14 BC, that was the accession year for Tiberius. If John was born on April 19-20, 2 BC, his 30th birthday would have been April 19-20, 29 AD, or the 15th year of Tiberius. This seems to confirm the 2 B.C. date and, since John was five months older, this also confirms the autumn birth date for Jesus.

"Elisabeth hid herself for five months and then the Angel Gabriel announced to Mary both Elisabeth's condition and that Mary also would bear a son who would be called Jesus. Mary went "with haste" to visit Elisabeth, who was then in the first week of her sixth month, or the fourth week of December, 3 BC. If Jesus was born 280 days later it would place the date of his birth on September 29, 2 BC. If Jesus was born on September 29, 2 BC, it is interesting to note that it was also the First of Tishri, the day of the Feast of Trumpets."

The only issue I have with these conclusions is that Elizabeth didn't become pregnant the instant Zacharias stepped out of the Holy of Holies. He finished his priestly course before returning home to her (Luke 1:23-24). Pushing Mr. Misler's whole schedule back fourteen days, though, makes everything fit like a glove: It would place Yahshua's birth at the Feast of Tabernacles, also known as *Sukkoth*, two weeks after the Feast of Trumpets. This fits perfectly with Yahweh's prophetic plan: Immanuel ("God with us") is Yahweh "camping out" among men. John, in fact, told us as much: "The Word became flesh and dwelt among us, and we beheld His glory, the glory as of the only begotten of the Father, full of grace and truth." (John 1:14) The word for "dwelt" tells the tale. *Skenoo* means "to tent or encamp, that is, to occupy or to reside, as God did in the Tabernacle of old, a symbol of protection and communion, to dwell." (Strong's) So Yahshua was born in the autumn of 2 BC, began His ministry when he was "about 30" (Luke 3:23), i.e., the autumn of A.D. 29 (remember, there's no year 0), and was crucified three and a half years later, in the spring of A.D. 33. He may have been camping out, but this was no vacation.

Furthermore, Luke records that "[Mary] brought forth her firstborn Son, [Yahshua] and wrapped Him in swaddling cloths, and laid Him in a manger [a feed trough], because there was no room for them in the inn." (Luke 2:7) The *only* place you'd find a manger is in a stable or corral, a place for housing livestock. It is not without

significance that the Hebrew word for such a place is *sukkoth*, the very word used to describe the temporary shelters the Jews were to construct during the Feast of Tabernacles (or Booths), and thus the Hebrew name for the seventh holy convocation. The fulfillment of the *miqra*'s prophecy is therefore absolutely literal. Yahshua was born on *Sukkoth*, the Feast of Tabernacles.

But as I said, there must (and will) be another fulfillment of the prophecy of the Feast of Tabernacles, because Yahweh placed it at the *end* of the annual series, not the beginning. (In confirmation of this whole line of reasoning, Yahshua described Himself as "the First and the Last" in Revelation 1:11.) The second and ultimate fulfillment of this Feast will occur when Yahshua the King returns to earth to reign in glory. (To be perfectly precise, the *return* happens on the Day of Atonement and the *reign begins* on the Feast of Tabernacles, five days later.) As I said, the Feast of Tabernacles is an annual week-long party. And what's the occasion? In context, the harvest is now complete; the bountiful provision of God has been gathered; the work is done. I don't know how Yahweh could have made it any clearer. This is a perfect picture of the seventh millennium. The final milestone will have been crossed when Christ reigns personally on earth, and we'll be with Him! Our work, and His, is finished. There's nothing left to do but celebrate, to revel in the bounty and grace of God. "Blessed and holy is he who has part in the first resurrection. Over such the second death has no power, but they shall be priests of God and of Christ, and shall reign with Him a thousand years." (Revelation 20:6)

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Recapping, then, I have made several assumptions—reasonable and scripture based, but assumptions nevertheless: (1) The six-plus-one pattern found in the creation narrative, the Law of the Sabbath, the sabbatical year, and Jubilee (and mirrored in less blatant ways scores of times in the Bible) is not accidental, incidental, or pointless, but was specifically designed to inform us of the timeline of God's redemptive plan. (2) The statements in II Peter 3:8 and Psalm 90:4 equating one day to a thousand years in Yahweh's eyes are not purely metaphorical, but are also literal indications of the milestones in God's schedule. (3) The anchor date of these milestones is 33 A.D., the year of Yahshua's atoning sacrifice. The other millennial mile markers are found spaced in precise thousandyear increments from this date. (4) The first day of the week-long Feast of Tabernacles is prophetic of the beginning of the seventh millennium—the Millennium corresponding to the "day of rest" spoken of in both the creation account and Sabbath Law. (The eighth day Sabbath indicates the eternal state that follows the Kingdom age.) If I'm mistaken about any of those things, then the dates in this appendix will be wrong as well—I'll leave it to you to figure out what Yahweh was really getting at. If my observations are correct, however, it means Yahweh has told us how to calculate the very day of His assumption of the government of earth, the commencement of His Millennial reign. The date falls as required by scripture—on a Sabbath: Tishri 15 (October 8), 2033.

By the way, the 2033 date is confirmed (sort of) in the Levitical Law of Jubilee. The last recorded celebration of Jubilee coincided with the commencement of the last great Jewish revolt against Rome under Shimeon ben Kosiba, better known as Bar Kochba ("Son of a star") in 133 A.D. The basic Jubilee program (as outlined in Leviticus 25) instructed that (1) Israelites weren't to sow or reap that year, but rather live off what had been provided by Yahweh already; (2) land that had been "sold" would revert to its original owner; and (3) indentured slaves were to be released from their servitude. Jubilee meant a fresh start, a second chance—a once-in-a-lifetime opportunity to have the slate wiped clean. It's a poignant picture of our salvation as well as a great prophetic metaphor for the Millennium.

Jubilee was supposed to be observed every fifty years. So if Jubilee occurred during the first year of Bar Kochba's revolt, on the Day of Atonement in 133, then the year of Yahshua's death and resurrection (33) was also a Jubilee year. (In His very first sermon, recorded in Luke 4, Yahshua proclaimed that He Himself would be the fulfillment of Jubilee—"setting at liberty those who are oppressed.") The next one (from our perspective) will begin on October 3, 2033—the very Day of Atonement on which Yahshua will reveal Himself to Israel on the Mount of Olives—five days before the final Feast of Tabernacles on October 8. Thus precisely forty Jubilees will separate His first advent from His second. And *that* number is significant as well. Forty in scripture is a number invariably associated with testing, trial, and preparation—as in forty days and nights of rain during Noah's flood, forty years in the wilderness wanderings of Israel, or forty days of Yahshua's fast and temptation. It's a perfect description of the plight of Israel during the intervening years.

Another sideways confirmation of the whole "2033 theory" is the evidence from lunar astronomy. Because their orbits are all on the same plane the earth sometimes blocks sunlight from illuminating the moon, something we call a lunar eclipse. This can only happen, of course, when the moon is "full," i.e., when the sun is lighting it up "straight on" (from the earth's perspective in the night sky). If the earth had no atmosphere, the moon would simply disappear when the earth blocked the sun's rays. But as it is, the air surrounding our planet refracts some of the sun's rays, causing the moon to appear red instead. Thus it is that a total lunar eclipse is known in common parlance as a "blood moon."

The prophet Joel described a time when Yahweh's Spirit would be poured out upon "all flesh" (all mortal flesh belonging to *Him*, that is—*His* "menservants and maidservants"). Though hints of this phenomenon would be in evidence throughout the church age (as in Acts 2) this outpouring of the Holy Spirit was primarily described as a feature of the Last Days—when, with Satan in virtually complete control of the earth, with scriptural truth suppressed and the new believers (Laodicean Christians and repentant Jews) hounded, harassed, and hunted by the Antichrist, it may seem as if God is not actually there. But He is, even now-and the Spirit is witness to that fact. In the context of the Spirit's outpouring, listen to how Joel describes the times: "And I will show wonders in the heavens and on the earth, blood and fire and columns of smoke." In other words, warfare and devastation the likes of which the world has never before seen. "The sun shall be turned to darkness, and the moon to blood, before the great and awesome day of Yahweh comes." In a general way, of course, there will be no shortage of reasons for the sky to grow so dark it's hard to see the sun or the moon. But this is also a specific description of lunar and solar eclipses. Before we get into that, however, let us hear the conclusion of the matter: "And it shall come to pass that everyone who calls on the name of Yahweh shall be saved." (Joel 2:30-32, quoted in Acts 2:20) Even during the darkest days of the Tribulation, Yahweh's salvation will be available. These who "call on the name of Yahweh" are the same mortals who will enter the Millennium as Yahshua's blessed "sheep," as they're characterized in Matthew 25:31-46.

The "sun turning to darkness" (a solar eclipse) and the "moon turning to blood" (a lunar eclipse) have happened many times before, of course. But that's no reason to ignore the significance of these things as signs of God's coming wrath. The decades leading up to 2033 (what I call "the Next-to-Last Days") are peppered with lunar eclipses, some of which fall on dates that *ought to* make your hair stand on end. In the years between 2000 and 2011, there were *thirteen* total lunar eclipses.

Since two of the seven Feasts of Yahweh fall on the fourteenth or fifteenth day of the lunar month (Passover and the Feast of Unleavened Bread in the spring, and the Feast of Tabernacles in the fall), there is always the possibility that a lunar eclipse will coincide with these convocations. But throughout history, when back-to-back years have seen *all four* of these appointed days marked by total lunar eclipses, it has invariably been a wake-up call for Israel. For instance, such a lunar "tetrad" (as they're known) occurred in 1493-94, only months after King Ferdinand and Queen Isabella expelled the Jews from Spain. Another lunar tetrad marked Israel's war of independence, in 1949-50. Again in 1967-68, four lunar eclipses on Yahweh's appointed days marked Israel's defining conflict with the house of Islam—the Six Day War. Israel again (or is that *still*) has its back against the wall, and another tetrad coinciding with the Feasts of Yahweh will

occur during 2014 and 2015. The purpose of all these blood-moon eclipses (if we may take the words of the prophet Joel to heart) is to encourage Israel to "call upon the name of Yahweh."

There are other lunar tetrads as well, though they don't *completely* coincide with Yahweh's holy convocations. The first eclipse of the 2003-2004 tetrad, for example, came but two weeks after the fatally flawed "Roadmap to Peace" was shoved down Israel's throat, as if to say, "the great and awesome day of Yahweh isn't far off: call upon *His* name, 'cause the Americans are obviously *lost*. But to my mind, the lunar tetrad to watch will happen in 2032-2033—at the very end of the Tribulation. Both blood moons in 2033 will coincide with Yahweh's holy appointments—the last of them marking Sukkot itself, the day King Yahshua will finally assume the throne of planet earth.

And what of solar eclipses? Yahweh was "thoughtful" enough to make our moon *exactly* big enough to block the entire sun, leaving nothing but the corona, or outer ring of fire, showing during a solar eclipse. As Joel phrased it, **"The sun shall be turned to darkness...before the great and awesome day of Yahweh comes."** Solar eclipses can happen only at the time of the new moon—that is, at the end or beginning of a month based on the lunar calendar, such as the Hebrew system. There is only one *miqra* that fits this description—the Feast of Trumpets, in the fall. Yahweh's "new year's day" (in the spring) also falls at the new moon: it's not one of His appointments, but it's significant nonetheless. There are going to be two solar eclipses in 2015, one on Nisan 1 (New Year's Day) and the other on the Feast of Trumpets, Tishri 1—a potential candidate for rapture day, though I'm not suggesting this is necessarily the case just because of the total eclipse of the sun (as cool as that would be). But as I said, at the time of this writing, we've only got about a dozen possible dates left, so who knows?

The final year of the Tribulation will also witness a total solar eclipse—the sun being "turned to darkness"—on March 30, 2033. To put things in perspective, this is the last day of the Hebrew year, Adar 29; the next day is Nisan 1—the Hebrew New Year's day, the *real* Rosh Hashanah. It's as if God is saying: "I'm coming—before the year is out. This is your last chance to avoid *eternal* darkness. Repent!" Sadly, by this time, most of the world will already have made their choice—to follow the Antichrist and the dragon, Satan.

In view of what we know of the final eclipses of the Great Tribulation, let us review one final passage: As we shall see, several events that we can pinpoint chronologically with a fair degree of certainty are mentioned here. The sixth Seal Judgment describes events that will take place within a few days of the end of the Tribulation. (If you'll recall, the seal judgments are the most generalized of the three judgment series.) "I looked when He [Yahshua, the Lamb of God] opened the sixth seal, and behold, there was a great earthquake...." This earthquake (as we shall

soon see) will take place on the final Day of Atonement, when Yahshua makes a "hard landing" upon returning from heaven to the Mount of Olives (see Acts 1:10-12, Zechariah 14:4).

"And the sun became black as sackcloth of hair, and the moon became like blood." The "sun" reference couldn't be an eclipse (unless it's a reference to the one that took place seven months previously), but the "moon-like-blood" notice *might* be: we know that the last of the four total lunar eclipses of the Great Tribulation will take place on Tishri 15 (October 8), 2033—the Feast of Tabernacles that marks the beginning of the Millennial Kingdom of Christ. By this time, of course, there will be so much pollution in the atmosphere, a blood-red moon might seem normal. So it's hard to be dogmatic as to the cause here. "And the stars of heaven fell to the earth, as a fig tree drops its late figs when it is shaken by a mighty wind." Meteor showers. "Then the sky receded as a scroll when it is rolled up, and every mountain and island was moved out of its place...." This too seems to be a reference to the great Day of Atonement earthquake: Tishri 10 (October 5), 2033.

"And the kings of the earth, the great men, the rich men, the commanders, the mighty men, every slave and every free man, hid themselves in the caves and in the rocks of the mountains, and said to the mountains and rocks, 'Fall on us and hide us from the face of Him who sits on the throne and from the wrath of the Lamb! For the great day of His wrath has come, and who is able to stand?'" (Revelation 6:12-17) The "great men" of the earth are always the last to see reality, it appears. They've been riding the Antichrist's coattails for the past three and a half years, deceiving themselves as they slew or enslaved the "little people" of the earth in order to gain some advantage for themselves. Here at last, when it's too late to change course, they see how disastrous a course they've been following. A few pages back, we encountered the blessed "sheep" of Yahshua's parable predicted in the prophecy of Joel. Here, alas, we see the cursed "goats," those who, whether free men or slaves, refused the grace of Yahweh until it was far too late. The blood moon is an apt symbol to represent their dismal fate.

One of the reasons I didn't slam the brakes on this whole timeline inquiry numbly chanting the mantra "No man knows the day or the hour" over and over again—was that Yahweh provided dozens of blatant chronological statistics relating to the Last Days. Some indicate the order of things: *this will happen, then that will happen.* Others give specific time frames: *this will happen precisely 1,260 days after that happens*, or *this condition will persist for exactly five months.* Call me overeager, but I couldn't get past the idea that Yahweh was very careful to tell us *when* many of these things would happen. He apparently wants

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us to have some specific knowledge about His schedule—besides the mere fact that He has one.

Figuring the whole thing out, however, is like working a big jigsaw puzzle. You have to figure out where each piece goes—not independently, but in relation to the pieces that interlock with it. My wife likes jigsaw puzzles; she always has one going. When she starts a new one, she'll divide the pieces into piles based on their general characteristics: *these are the blue sky pieces; these are the bright flowers in the lower left; these are in this nondescript textured area over here; and these are edge pieces that'll help me get my bearings*. We would do well to make use of the same technique: *these are "edge pieces" we need to establish a chronological framework; these interlock with the abomination of desolation; this one is the same color as the two witnesses*....

We just established two of the key dates in the whole affair. The first day of the Millennial reign of Christ will fall on Saturday, October 8, 2033. (You've heard the caveats already; from now on when I state something as a certainty, bear in mind the assumptions I've listed.) The Day of Atonement—the actual day of Yahshua's return—will fall five days before this. We'll come back to this, because lots of puzzle pieces lock into October 3. But for now, let's concentrate on finding the rest of the "edge pieces."

If the first day of the Millennium is October 8, 2033, then counting backward, we can determine precisely when the Time of Jacob's Trouble will begin. If you'll recall. Daniel 9 laid out the last seventy "weeks" or septades of Israel's destiny-490 years of 360 days each, the first 483 of which are behind us. "Then [after the seven weeks and the sixty-two weeks] he [the prince who is to come, i.e., the Antichrist] shall confirm a covenant with many for one week; but in the middle of the week he shall bring an end to sacrifice and offering." (Daniel 9:27) The 70th septade, then, is defined as the period of a seven-year "covenant" that will be confirmed by the Antichrist with "many" (presumably nations or peoples, not individuals). The Hebrew word for "confirm" is *gabar*, which means "to be strong; by implication, to prevail, act insolently, exceed, confirm, be great, mighty, or valiant." The idea is that the Antichrist will push the covenant through, steam-rollering all opposition before him with insolence and an unstoppable force of will. Treaties come and go, but this particular one will be signed/ratified/implemented (we're not quite sure which) exactly 2,520 days before October 8, 2033. That comes out to Saturday, November 14, 2026. Black Sabbath.

As long as we're digging out the "edge pieces," lets determine precisely when the middle of the Tribulation is. It's not only mentioned here in Daniel 9, it's alluded to quite a few times in scripture—indeed, it marks a paradigm shift of catastrophic proportions for the earth, when it moves out of the Tribulation into the *Great* Tribulation. 1,260 days (forty-two months, or three and a half years) before October 8, 2033 works out to April 27, 2030.

And just for the sake of being thorough, let's figure out the last possible date for the rapture. (I just can't leave it alone, can I?) The Feast of Trumpets in 2026 falls on Saturday, the 12th of September. That's about two months before the "covenant with many" is confirmed, beginning the tribulation. However, not only are there an awful lot of things to accomplish in the gap between the rapture and the Tribulation (it took me an entire chapter to explain it all in *The End of the Beginning*) there's another reason this date seems highly improbable to me. You see, if it's the last possible date for the big day, then *somebody's* going to be expecting it, and as we have seen, "No man knows...." Logically, of course, you can play head games with this and say, *if the last possible date is impossible, then the next-to-last possible date is the last possible date, and therefore* that's *impossible....* But beyond a year or two, it gets pretty silly. For all practical purposes, I'm guessing that Yahweh will leave a gap of *perhaps* three or four years between the great catching up and the great cashing in. One thing's sure: we'll know it when it happens.

But how can I be certain that the rapture will precede the Tribulation? After all, you can find people who believe it will take place at the end, or in the middle, or will be split into two groups, or won't happen at all. We can dismiss the splitrapture and no-rapture theorists immediately because both positions ultimately rely on the denial of God's grace: *we've got to work our way to heaven*. Sorry, guys, it can't be done. And what about the mid-tribbers and post-toasties? Both of them suffer from the same fatal flaw: because Yahweh has given us enough information to pin down the beginning, middle, and end dates of the Tribulation, holding to either of these theories immediately brands Matthew 24:36 a lie, insisting we *do* know—or more correctly, we *perceive* (the Greek is *eido*, not *ginosko*) the day and hour of His coming for His people.

Beyond simple logic, however, we are given clues as to the order of things that not only place the rapture before the Tribulation, but imply a gap of some duration between them. First, the prophetic dress rehearsals: Noah and Lot. In both cases, the people being taken out of harm's way were sealed from harm *before* disaster struck. (I realize that Noah isn't, strictly speaking, a picture of the rapture but of the protection of the Jews through the Tribulation. But the principle still applies. Actually, it was Noah's great grandfather, Enoch, who provided the direct symbolic parallel to the rapture—*before* the flood, you'll notice.) In the case of Lot, the angels told him they couldn't harm the city until after he had been taken out. That establishes the order: rapture first, wrath later.

Paul gives us more specific information. First, he says that there is no divine wrath in our future. **"God did not appoint us to wrath, but to obtain salvation through our** 

Lord Jesus Christ, who died for us, that whether we wake or sleep, we should live together with Him. Therefore comfort each other and edify one another, just as you also are doing." (I Thessalonians 5:9-11) If God had scheduled the rapture for any time other than preceding the Tribulation, then these verses would be a lie, for the Tribulation is nothing if not a day of wrath. The prospect of "riding out the storm" like Noah could hardly be construed as cause for comfort. Besides, according to the fifth seal of Revelation 6:9-11 (and compare Revelation 7:9 to 7:14), the Tribulation believers *won't* ride out the storm. They'll be slaughtered by the millions.

Paul goes on to establish the order of events: "Now, brethren, concerning the coming of our Lord Jesus Christ and our gathering together to Him, we ask you not to be soon shaken in mind or troubled, either by spirit or by word or by letter, as if from us, as though the day of Christ had come. Let no one deceive you by any means; for that Day will not come unless the falling away comes first, and the man of sin is revealed...." (II Thessalonians 2:1-3) His readers were concerned about the "coming of Yahshua the Messiah" *and* their "gathering together to Him"—two separate things that won't necessarily happen at exactly the same time. Before the "coming" of Christ (in contrast to the "gathering"), two things will happen. First, there will be a "falling away," that is, a state of apostasy—a general forsaking of the truth—will prevail. And second, the "man of sin," i.e., the Antichrist, will be revealed.

I'd say we're well on our way toward seeing the first of these two conditions fulfilled. Yes, Yahweh has "reserved unto Himself seven thousand who have not bowed the knee to Baal," and the Church of Philadelphia is still hanging on by its fingernails (as Yahshua prophesied in Revelation 3:8). But today as never before, the Ekklesia of Christ is either an object of ridicule—misunderstood, mischaracterized, and dismissed—or it's openly attacked from within with destructive heresies, and from without with everything from legislation to gunfire. This sad process will be completed when the rapture occurs, leaving no one left on earth who hasn't "fallen away" from the truth.

That leaves only the man of sin to be unveiled before the Day of Christ. Although it may seem elementary to us, Paul's point was that Yahshua's return in glory would come at the end of the Tribulation, after the Antichrist had taken his best shot. Remember, it had been predicted that false Christs would come and fool many. And the Thessalonian believers had heard rumors that Yahshua had already returned—and forgotten all about them. Paul was trying to set the record straight: first apostasy and Antichrist, then the second coming—that's the order of events.

But Paul wasn't through. He now pushed the timeline back a notch, prophesying that the Holy Spirit, He who now restrains evil in the world, would be "taken out of the way" *before* this "lawless one," the Antichrist, would be revealed. **"And now you know what is restraining, that he** [the Antichrist] **may be revealed in his own time. For the mystery of lawlessness is already at work; only He who**  **now restrains will do so until He is taken out of the way. And then the lawless one will be revealed....**" (II Thessalonians 2:6-8) Here Paul has addressed his readers' concerns about their "gathering together to [Yahshua]" (verse 1). The Antichrist would not be revealed (in his true nature, anyway) until after the Holy Spirit—the One who now restrains lawlessness—was "taken out of the way." Because the Holy Spirit dwells within individual believers, that can't happen as long as the Church is on the earth. Therefore the rapture—the "gathering together" about which Paul was trying to calm their shaken minds—must precede the unveiling of the Antichrist, which, in combination with a falling away from the truth, must precede the Day of Christ. Thus the pre-Tribulation rapture scenario that is established here foresees a two-part "second coming." The gathering together of the saints (a.k.a., the rapture) will be followed years later by the return of Yahshua in glory—bringing those saints back with Him.

The Last Days events we've seen so far, then, will occur in this order:

- (1) The rapture will take place on the Feast of Trumpets (the 1st day of Tishri on the Hebrew calendar) in some year between now and 2026.
- (2) Apostasy—abandonment of Truth—will become virtually universal.
- (3) The Antichrist (a.k.a. the lawless one, the man of sin, or the son of perdition) will be "revealed." That is, he will begin doing the things that are prophesied concerning him, specifically becoming the leader of a tennation confederation from within the old Roman empire of which three nations have been merged into his own state.
- (4) The Tribulation will begin on Saturday, November 14, 2026 with a treaty or covenant agreed to by "many" (the United Nations, in all likelihood), pushed through by the Antichrist. This treaty will "guarantee" Israel's sovereignty, but at a price.
- (5) The midpoint of the Tribulation, marking an escalation in Yahweh's wrath (not to mention the Antichrist's power), will arrive on April 27, 2030.
- (6) Israel will recognize and receive their Messiah, Yahshua, upon His return to the Mount of Olives, on October 3, 2033, the Day of Atonement.
- (7) The Tribulation will end 2,520 days after it began, on October 7, 2033.
- (8) Yahshua will begin His Millennial Kingdom reign on October 8, 2033, the first day of the Feast of Tabernacles.

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This isn't remotely everything that Yahweh's told us about His timetable, you understand. There are many prophesied events that can help us build a comprehensive picture of the Last Days, adding detail to this basic structure. These puzzle pieces may not seem to make much sense or have any special significance by themselves, but placed in their proper context, they work together to form a clear picture of these times. It is my purpose here to explore only those prophecies that have a specific time factor attached to them.

- The Jews will at some point rebuild their temple and reinstitute the Levitical (1)sacrifices. We know this because Paul predicts the presence of the temple in his teaching concerning the Antichrist. The "man of sin" is described as sitting "as God in the temple of God, showing himself that he is God." (II Thessalonians 2:4) Also, Daniel 9:27 reports that "[The Antichrist] shall confirm a covenant with many for one week; but in the middle of the week he shall bring an end to sacrifice and offering." The sacrifices can't be made just anywhere or by anybody. They must be, according to the Torah, made by Jewish priests from the tribe of Levi, from the family of Aaron, in a single appointed place of worship within Israel. Since 967 B.C. that place has been the temple mount in Jerusalem. (The fact that most observant Jews today don't see a need to rebuild the Temple-because they've constructed an elaborate alternate reality based on the manmade traditions of the Mishna-doesn't change anything. The scriptures strongly suggest that the temple *will* be rebuilt and the sacrifices reinstituted. They don't say why.) The "middle of the week," as we have seen, will fall on April 27, 2030 (but see #3, below). Thus the third temple will have to be in operation sometime before this.
- An all-out invasion of Israel will be perpetrated by the army of "Magog" (2)and its allies, comprised of the majority of the Muslim nations in the Middle East and North Africa. The Antichrist will be involved in the "defense" of Israel (see Daniel 11) because it's his treaty—and reputation—that's being violated. A blow-by-blow account of the war is recounted in Ezekiel 38 and 39, where we learn that "for seven months the house of Israel will be burying [the slain enemy], in order to cleanse the land." (Ezekiel 39:12) Here are our timing clues: it will take at least six or eight months to build the temple after the treaty is first put in place. It seems likely that the Muslims won't attack until after it's finished. (Total war as described would surely halt the construction, and we've seen that both the Antichrist and the Jewish priesthood will make use of it, so the temple must logically be completed before the attack.) And as we will see shortly, the Jews will be driven into hiding when the Antichrist calls a halt to the temple sacrifices in the middle of the Tribulation—April, 2030—which means they won't be able to spend

any more time hanging around cleaning up the Muslim corpses; thus the seven predicted months are already past when they flee. From these factors, we can deduce that the War of Magog (the opening phase of World War III) will take place during the first half of the Tribulation, beginning perhaps a year into it (October to December, 2027) and ending with Yahweh's destruction of Magog's Islamic Armies on the mountains of Israel no later than August, 2029. The nuclear war raging outside Israel could last a bit longer but not past about February, 2030.

- The precise timing for the next event on our list is provided not by scripture (3) (which only describes what happens) but by NASA! The third trumpet judgment (Revelation 8:10-11) describes "a great star [falling] from heaven, burning like a torch, and it fell on a third of the rivers and on the springs of water... and many men died from the water, because it was made bitter." This follows not only a nuclear war (the first Trumpet judgment), but also the second Trumpet, which speaks of a "great mountain burning with fire" being thrown into the sea, causing the death of one third of the earth's oceans. (The Cumbre Vieja volcano on La Palma Island in the Canaries is poised to fulfill that one, precipitating tsunamis 150 feet high capable of destroying cities on both sides of the North Atlantic.) It is instructive to compare these things to the description of the violent demise of "Commercial Babylon" in Revelation 18, especially the reference to ships and their crews in verses 17 and 18. When will this "great star" (the Greek word is *aster*) strike the earth? NASA scientists have calculated that the massive asteroid "99942 Apophis" (originally named 2004MN<sub>4</sub>) will come very near the earth on Friday, April 13, 2029. They say it will come within 15,000 miles of eartha mere fifteen percent of the distance from the earth to the moon-a razor burn, as these things go. It has one chance in thirty-eight of actually impacting our planet (or, more in line with the Scripture passage that predicts it, exploding in the atmosphere, like the similar 1908 Tunguska event did). Apophis is big enough to obliterate an area the size of Texas, and apparently it wouldn't take much of an angelic nudge to plunge it to earth, causing precisely the type and extent of devastation spoken of in Revelation. Assuming the Trumpet Judgments will be fulfilled in chronological order, the asteroid's calculated timing would place its arrival on the heels of the volcano, which in turn would follow worldwide nuclear war (which is described in the first Trumpet Judgment). It's a one-two-three knockout punch, culminating about a year before the midpoint of the Tribulation—our next chronological stop.
- (4) The "abomination of desolation" is an event that marks the "outing" of the Antichrist, when he will openly reveal that he is in league with Satan. This is when he "sits as God in the temple of God, showing himself that he is God," as

we saw above. At this point his false prophet will demand the worship of his image and institute the "Mark of the Beast." Daniel reports that the halting of the temple sacrifices will happen in the "middle" of the seven-year Tribulation (9:27), but a bit later he informs us precisely—to the day—when the abomination of desolation will take place: "And from the time that the daily sacrifice is taken away, and the abomination of desolation is set up, there shall be one thousand two hundred and ninety days." (Daniel 12:11) We are still in the context of the 2,520-day (or "seven week") period. So when the angel says "there shall be 1,290 days," he is obviously counting backwards from the end. Since the mid-point (April 27, 2030) is 1,260 days back, the date he's referring to is thirty days before that: March 28, 2030.

- (5) The Abomination of Desolation, a month before the middle of the Tribulation, commences the world-wide rule of the Antichrist. At this point he begins a campaign designed to root out and destroy all vestiges of the worship of Yahweh, driving the recently converted Tribulation saints gentiles, but especially the Jews—into hiding. The halting of the temple sacrifices will naturally follow his victory. "Then the saints shall be given into his hand for a time and times and half a time." (Daniel 7:25) The Antichrist's Satanic government will prevail on earth for precisely three and a half 360day "years"—the last half of the Tribulation minus one month, that is, from March 28, 2030 to September 8, 2033. This is confirmed by John: "[The outer court of the temple] has been given to the Gentiles. And they will tread the holy city underfoot for forty-two months." (Revelation 11:2)
- (6) At about this time, two "witnesses" will appear in order to dispense the wrath of Yahweh upon a sinful earth in a display reminiscent of the ten plagues of Egypt. We are told the precise tenure of their "ministry": "And I will give power to my two witnesses, and they will prophesy one thousand two hundred and sixty days, clothed in sackcloth." This is exactly the same elapsed time as the unimpeded rule of the Antichrist we saw in point #5. I believe they overlap to a large degree, but they aren't a hundred percent coterminous. Why? Because of what is said about their deaths. "Their dead bodies will lie in the street... [for] three-and-a-half days.... And they ascended to heaven in a cloud, and their enemies saw them. In the same hour there was a great earthquake, and a tenth of the city fell." (Revelation 11:8, 12-13) I am admittedly going to make an assumption here, but one that's eminently plausible. I believe this "great earthquake" that marks the two witnesses' resurrection (seen here in the context of the sixth trumpet judgment) is the very same as that mentioned in both the sixth seal and seventh bowl judgments: "He opened the sixth seal, and behold, there was a great earthquake...and every mountain and island was moved out of its place...For the great day of His wrath has come." (Revelation 6:12-17) And "The seventh angel

poured out his bowl.... And there was a great earthquake, such a mighty and great earthquake as had not occurred since men were on the earth.... Then every island fled away, and the mountains were not found." (Revelation 16:17-20) If the same great earthquake is being described here, then we know exactly when it will occur: October 3, 2033. (I'll tell you why in a moment.) Subtract the three and a half days that the witnesses lay dead in the streets of Jerusalem, and another 1,260 for the days of their "testimony," and we know when they first appear: Thursday, April 18, 2030. To put things in perspective, this is three weeks after the Abomination of Desolation—the signal, according to Yahshua (Matthew 24:15-21) for those living in Judea to "flee to the mountains." And to make things deliciously poetic, guess what else the day signifies. In 2030, the 18<sup>th</sup> of April falls on the 15<sup>th</sup> of Nisan on the Hebrew calendar, on the Feast of Unleavened Bread—the one day of the year specifically set aside by Yahweh to clean all the sin and corruption out of the house of Israel. That's pretty significant, if you ask me.

- (7) The fifth trumpet judgment records a period of time when demonic locust-like beings are released from the bottomless pit, or abyss, to torment those not under the protection of Yahweh: "They were not given authority to kill them, but to torment them for five months. Their torment was like the torment of a scorpion when it strikes a man. In those days men will seek death and will not find it; they will desire to die, and death will flee from them.... Their power was to hurt men five months." (Revelation 9:4-6, 10) This plague is apparently directed against the same group mentioned in the first bowl judgment of Revelation 16:2, those who have accepted the Mark of the Beast and pledged loyalty to the Antichrist and the dragon he serves. Therefore it must occur during the second half of the Tribulation. And assuming the trumpet judgments are listed in chronological order, it would have to come early in this period, because of what follows:
- (8) The next trumpet judgment, the sixth, speaks of an army of two hundred million "horsemen" who are incited to battle by four angels (presumably fallen) "who had been prepared for the hour and day and month and year" (Revelation 9:15) for this task. I believe this phrase may mean more than that they were prepared for this precise moment, which is pretty obvious. Rather, we are (perhaps) being told when these spirits will be released to call the Eastern horde to their destiny: starting from the Abomination of Desolation (March 28, 2030) we count an hour, plus one day, one month (thirty days), and one year (360 days), a total of 391 days, bringing us to April 23, 2031. Looking at what this army must "accomplish," (Revelation 9:13-21, 16:12) this is a plausible timeframe at the very least. Fortunately, nobody's salvation depends on whether I'm right or not.

- (9) As we saw back in point #5, the Antichrist's unhindered reign of terror is confined to a three and a half year period ("time, times, and half a time"). That time began on March 28, 2030 with the Abomination of Desolation. Now, on September 8, 2033, his world starts to fall apart. He is no longer able to kill believers in Yahweh with impunity. Now that his power is broken, some of the Jews who had been hiding out in the wilderness begin to return to Jerusalem.
- (10) The Antichrist isn't entirely done killing believers, though. Ironically, he will kill two of them (perhaps his last two) after his time as king of the hill is over (Revelation 11:7), the last spasm of a dying regime. The two witnesses who were such a thorn in his side for his entire three and a half year reign will be slain in the streets of Jerusalem on September 29, 2033. Their bodies will lie there unburied and unmourned for three and a half days as the unrepentant world celebrates their death. But at the end of that time (on October 3), they will rise from the dead and ascend to heaven in full view of the TV cameras—giving their enemies a severe case of the heebie-jeebies. But these unrepentant souls will soon have something bigger to worry about.
- (11) The "Big One," the great earthquake of the sixth seal, sixth trumpet, and seventh bowl judgments (if my theory is correct), will occur within an hour of the two witnesses' resurrection (Revelation 11:13) on October 3, 2033. Why at precisely this moment? As we have seen, this is the Day of Atonement, the 10<sup>th</sup> of Tishri, a day in which the Israelites were instructed to "afflict their souls." (Leviticus 23:27) Thinking in prophetic terms, what would make them want to do that? It's the recognition that they had been dead wrong about Yahshua of Nazareth-that their forefathers had murdered their promised Messiah and they had by their national rejection perpetuated their fathers' sin. Zechariah records their epiphany: "[Israel] will look on [Yahweh] whom they pierced. Yes, they will mourn for Him as one mourns for his only son, and grieve for Him as one grieves for a firstborn. In that day there shall be a great mourning in Jerusalem." (Zechariah 12:10-11) This is clearly indicative of the Day of Atonement. And where will the Jews "look on" Yahshua? The prophet explains: "In that day His feet will stand on the Mount of Olives, which faces Jerusalem on the east. And the Mount of Olives shall be split in two, from east to west, making a very large valley; half of the mountain shall move toward the north and half of it toward the south." (Zechariah 14:4) That's our monster earthquake, in case you missed it, the very same earthquake described in such detail above. But how will Yahshua get to the Mount of Olives? By bus? Not hardly. Two angels, if you'll recall, told Yahshua's disciples as they stood on Olivet staring skyward as He ascended from firstcentury Jerusalem, "Men of Galilee, why do you stand gazing up into heaven? This same Jesus, who was taken up from you into heaven, will so come in like manner

**as you saw Him go into heaven.**" (Acts 1:11) So here's what's happening: Yahshua, resplendent in glory, descends to earth from the heavens. His point of arrival is the Mount of Olives. His date of arrival is the Day of Atonement, October 3, 2033. The result of His arrival is two-fold. First, the very crust of the earth moves aside in homage to its Creator, setting off the largest earthquake in the history of mankind. And second, the Jews who have returned from hiding in the wilderness to Jerusalem (remember, the Antichrist's authority ended on September 8—see #5) witness the power of their Messiah, recognize Him for who He is, and immediately go into deep mourning—affliction of the soul, just as the *miqra* required.

- (12) Yahshua, I'm sure, would love to stay in Jerusalem and chat with all His new friends. But there's the little matter of two hundred million soldiers from the East plus multitudes of other "insurgents" from every nation on earth who have gathered up north in Armageddon (*Har Megiddo*, which means "mountain of rendezvous" or "hill of the gathering of troops") with the express purpose of wiping the Jews off the face of the earth once and for all. So Yahshua, apparently beginning down south near the Dead Sea at Bozrah, immediately begins to pummel the advancing horde, squashing them all like grapes in a winepress, according to Isaiah (63:1-6). He has to work quickly because His thousand-year reign is scheduled to begin in a matter of days. Four days later, on the last day of the Tribulation (admittedly a guess) He captures the Antichrist and his false prophet and throws them into hell—without bothering to kill them first (Revelation 19:20). It's all over as the sun sets on October 7, 2033.
- (13) The very next day, the 15th of Tishri on the Hebrew calendar—October 8, 2033 on the Gregorian—King Yahshua will begin His thousand-year reign on earth. Naturally (because the Torah requires it) it's a Sabbath, Saturday, the seventh day of the week. At this point, there is but one enigmatic bit of timing data left for us to ponder. It's in a passage we examined before, one that will help us get our bearings: "And from the time that the daily sacrifice is taken away, and the abomination of desolation is set up, there shall be one thousand two hundred and ninety days. Blessed is he who waits, and comes to the one thousand three hundred and thirty-five days." (Daniel 12:11-12) As we saw, the only logical way to account for the 1,290 days is to count backward from the end of the Tribulation to arrive at the date of the Abomination of Desolation: March 28, 2030. But what's this other date? To get to that, we must count forward from the A of D 1,335 days—that is, the original 1,290 plus an additional 45. What does Yahshua intend to do with the 45 days? Why are you "blessed" when and if you come to the end of them? I believe that this is the time period required for the "separation of the sheep from the goats" described in Matthew 25:31-45. Yahshua will personally judge

everyone left upon the earth. The question will not be, "Were you without sin?" Everybody knows the answer to that one. He could skip the formalities and just set the planet on fire. No, the criteria will be, "Did you feed Me when I was hungry, give Me a drink when I was thirsty, shelter Me, clothe Me, visit Me, protect Me when you had the chance?" You? will be the inevitable response. We didn't even see vou! Then He will explain that by taking care of His "brothers," you were in effect taking care of Him-or not, as the case may be. Who, then, does He consider His "brothers"? The neoChristians aren't a particularly good fit for this group, for the simple reason that *they* are the ones expected to be counted among the "sheep," those who will populate the Millennial Kingdom. Yahshua's brothers are, rather, the people most of the world has been trying to exterminate for the last seven years: Israel, the Jews, the recipients of Yahweh's most enduring and unlikely promise: "I will bless those who bless you, and I will curse him who curses you; and in you all the families of the earth shall be blessed." (Genesis 12:3) This blessing and cursing will be complete 45 days into the Millennium. The Gregorian calendar date is absolutely beside the point.

I pray that *all* of these dates are beside the point for you—that you know Yahshua as your Savior already, that you have a personal relationship with Him, and that you will, as a result, be called home long before the real nastiness begins.

But if you have stumbled upon these pages after the rapture, take comfort in two things: first, Yahweh knows exactly what He's doing; He's in control of the schedule and He's told you what will happen before it happens so you can plan for it (and more to the point, so you can know beyond the shadow of a doubt that He is God—the One who exists outside of time). Second, the bad times won't last forever. A few (relatively speaking) will survive to the end and will "be fruitful and replenish the earth" during the Messiah's thousand-year reign. If you can do so without denying Yahweh, hold onto your life. In particular, don't pass up the opportunity to assist, shelter, feed, or otherwise minister to any Jew who may cross your path during these dark days. Be aware that life is choice: it's no bargain to exchange a few months of mortal earthly existence for an eternity separated from God.

## Appendix 2 Secular Chronology Confirmation

How current trends corroborate the Bible's revealed timeline

The premise of *The End of the Beginning* was to point out what Yahweh's scriptures have to say about events that are yet to come—predictive prophecy, as yet unfulfilled. I was as surprised as anyone (having been taught the exact opposite all my life) to discover that God's word reveals His timetable—His schedule of coming events—and not just in approximates, hypotheticals, or rough orders of events, but in actual concrete dates that we can circle on a calendar—or *could*, were it not for the fact that everyone who actually believes God's word will be caught up to be with Him before these things happen, in the only major Last Days event for which a date *isn't* indicated in scripture: the rapture of the church. This in turn leads me to the conclusion that all of the Last Days chronological data listed in scripture—which is considerable—is intended to be understood primarily by those who will come to faith *after* the rapture. Based on the Biblical clues, I expect there to be multitudes of them: the Church of Repentant Laodicea.

Those scripture-based chronological conclusions were collected in Appendix I. The bottom line: the Biblical evidence points toward an unprecedented paradigm shift in the way the world works—not just "someday," but zeroing in on one decade, one year, one *day* to the exclusion of all others: Tishri 15 (that is, October 8 that year on the Gregorian calendar), 2033. That's the definitive Feast of Tabernacles: it's the beginning of Christ's Millennial Kingdom—a date from which a plethora of other significant events can be timed, using nothing more than data presented in prophetic scripture.

Granted, we must make a few suppositions to get to that conclusion, but these are assumptions any believer should be able to draw without hesitation, if only we'd give it a moment's thought. In general terms: (1) Yahweh doesn't do or say anything on a pointless whim. The information He has left for us in His word is there for our edification—even if we don't "get it" right away, even if the church as a whole has never recognized these truths. (2) Everything God has told us in His word has some bearing on either our well-being in this life or His ultimate plan for our redemption and reconciliation with Him—something that has eternal ramifications. (3) The things most crucial to our knowledge of His plan are repeated and restated several different ways in various places in scripture.

More *specific* assumptions (still scripturally based and doctrinally sound) take us the rest of the way. (4) The Biblical formula equating one day to a thousand years (II Peter 3:8, Psalm 90:4) is not merely a metaphor about God's patience, but is an indication of Yahweh's ordained structure for the time of man. (5) The often-repeated six-plus-one pattern (e.g. the Creation account, Sabbath days and years, Jubilee, the Feasts of Yahweh, etc.) reveals God's plan: fallen man is to "work things out" for six thousand years (beginning at the fall of Adam into sin), and will "rest" in the Messiah's finished work during the seventh Millennium. The total allotted time for the age of fallen man upon the earth (i.e., from Adam's sin forward) will thus be seven thousand years, after which the eternal state will commence. (6) As confirmation, we have witnessed spiritually significant milestones at precise thousand-year increments ever since the fall of man, the most significant of which (not to mention the most obvious) was Yahshua's crucifixion and resurrection in 33 A.D.

And finally (7), The seven "holy convocations," or "Feasts of Yahweh," mandated in the Torah commemorate what Yahweh considers the seven key events of His plan of redemption. In a nutshell, they predict God's sacrifice in our stead; the removal of our sins; our acknowledgment and thanks for God's provision of life—something *proved* by the resurrection of Christ; the indwelling of Yahweh's Holy Spirit within our souls; the sudden transformation of God's children from mortal creatures (whether living or dead) into immortal beings with bodies built for the eternal state—an event that will necessarily separate us (along with the Holy Spirit who indwells us) abruptly from the world; the belated awakening, repentance, and response of Israel to the reality of their Messiah and God; and the sojourning of God with men-this time as reigning King. The ones that have already been fulfilled in history (the first four) lead me to the conclusion that the last three will also come to pass on the precise anniversaries of their Levitical mandates: they are called the "Fall Feasts" because the Torah places them in our September or October-Tishri 1, 10, and 15. Thus the last of Yahweh's appointments with us (the Feast of Tabernacles) will take place precisely on schedule, beginning on the appointed day (Tishri 15—October 8), exactly two thousand years after the passion of the Christ—in 2033.

I don't really care whether you believe me or not. I don't get brownie points for being right. I'm merely reporting the conclusions to which my study of scripture has led me. I can't help it if nobody else has noticed these things. If I'm wrong, I'll be proven a fool soon enough—the date's not that far off. But if I'm *right*, the world has a problem. They had better wake up soon—or risk dying in their sleep. The fact is, scripture isn't the only source of information conspiring to warn us of a major paradigm shift on the near horizon. All my life, Christians have been looking forward with eager anticipation to the second coming of Christ. One of my earliest childhood memories was of my parents (both devoted Christians) being all excited about something called "Israel," and how the establishment of their country meant that the return of Jesus couldn't be far off. I was only five or six years old, of course: I had no idea what that might mean. (Their prayers invariably included petitions for an end to the Korean War and God's blessings upon Israel.) So here we are, over sixty years later, and Yahshua the Messiah (the One my folks called Jesus Christ) still hasn't returned. Am I disappointed? No. (Well, maybe a little.) But I'm not *surprised*. Having cut my teeth (as it were) on Bible prophecy, I am more convinced than ever that they were absolutely right: the harbingers heralding *The End of the Beginning* had begun to show themselves in earnest.

What mom and dad saw was the "budding of the fig tree," and the generation that witnessed this sign (of which I am now one of the "elders," so to speak) was prophesied to endure until all of the things of which the Messiah spoke had come to pass. And as you know, the signs signaling the end are all here in profusion; all that remain to be seen (excuse the rapture) are the Tribulation's actual woes. The "fig tree" (Israel) no longer just has buds on it; it is now heavy with ripe fruit. Summer is upon us: the harvest must come soon.

If you'll recall, we discussed all these signs at length in Volume I. But what we *didn't* discuss was the fact that in instance after instance, these harbingers of the Last Days—like the prophecies themselves—seem to have a timeframe attached to them, an expiration date. In example after example, there appears to be a crisis brewing, an event horizon before which problems must be solved, and issues resolved, or the world as we know it will cease to be. And time after time, the "deadline" for resolution—the date when critical mass will be reached— appears to be sometime during the third or fourth decade of the twenty-first century (2020-2040): *precisely when the Bible indicates its Last Days prophecies will all come to pass*.

In other words, you don't need to be a Bible scholar or prophecy expert to perceive that the world is on the cusp of a fundamental paradigm shift of "biblical" proportions. You merely need to be awake and informed—aware of what's really going on in the world around you. It's not just one or two things, either, it's *dozens* of them—all converging on a single narrow timeframe in our not-too-distant future, like the Bolivian army surrounding Butch Cassidy and the Sundance Kid. The world has seen crises before—pandemics, weather and seismic events, world wars, geo-political disasters, etc.—but the things in *our* 

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future promise to affect not just one region or people, but the whole world and everyone who lives here. And the death toll promises to be astronomical.

To put this in perspective, the most disruptive and lethal single "event" the world has ever seen (not counting Noah's flood, for which we have no statistics) was World War II, which directly or indirectly affected perhaps a third of the world's populations (though their *nations* occupied seventy or eighty percent of the earth's land area), and was fought over maybe five percent of the world's surface. The world's total population when the war began in the late 1930s was about 2.2 billion people. During the war, fifty-five million souls were lost—unspeakable carnage to be sure, but "only" about one person in forty, worldwide. (And need I remind you that we *abort* that many innocent lives *every fifteen months* in this present world?)

The world's present population is just north of seven billion. The Bible (as we have seen) predicts two specific "causes" that will, between them, kill half of us—over three and a half billion souls (first a quarter of us, and then a third of what's left). And there will be a hundred ways to die during the Tribulation that are not directly attributable to either of these causes. All of this has led me to speculate that roughly six sevenths of the earth's population—*six billion people*—will die (or be raptured) between now and the beginning of Christ's Millennial Kingdom; and the herd will be further thinned out (drastically, I'm guessing) during the "separation of the sheep from the goats," described in Matthew 25.

I realize there's a fair bit of guesswork there, but if the prophecies are true, I *can't* be terribly far off. (And if the prophecies *aren't* true—if the Bible is a lie and Yahweh doesn't really exist—then I'll be proven a fool for believing in Him. But that doesn't let the world off the hook, as we'll soon see.) Any way you slice it, humanity is about to become an endangered species. If World War II was "bad," taking 25 people out of 1,000 (i.e., one life in forty), how would you characterize the Last Days, which will witness the deaths of *950* people (+/-) out of every 1,000? Calling it "*really* bad" doesn't quite do it justice. But as I said, it is not my intention here to hash over what the prophets of Yahweh had to say. Been there, done that. It is, rather, my purpose to explore things of which the prophets *didn't* speak, but that nevertheless reveal a great deal about the real peril of the times in which we are living.

I've noticed a disturbing trend of late. There seems to be a growing dichotomy between informed citizens and the "low-information" segment of society—at least here in America. We're up to our ears in the "information age," and yet many people remain blithely ignorant—by their own choosing—of what's going on in the world, and why. Oh, they'll follow celebrities or sports, and if a crime is alleged to have happened that the mainstream media finds particularly "interesting," they'll form an unshakable opinion about it so fast it'll make selecting a responsible, unbiased jury next to impossible. These opinions aren't based on evidence or law, you understand, but on emotion, demographic identity, and wishful thinking. So these days, the only truly unbiased juries are composed of people too ignorant or apathetic to remain informed. They say justice is blind. I would contend that these days she's also deaf and stupid, and has been bound and gagged as well, and that's not a good thing.

Willful ignorance and apathy are nothing new, of course, but these attributes make people vulnerable to the inexorable disintegration of their world something that, at this late hour, has the potential to destroy them—all of them. It doesn't really have much to do with native intelligence, but rather with the will and courage to use it. I realize that relative awareness is a sliding scale, ranging from a drug-enhanced couch-potato coma on one end to raving paranoid schizophrenia on the other. But the "happy medium" can be wrong as well if we are relying on our own strength and strategies to solve the world's problems. Time after time in scripture—and especially in the New Testament—we're admonished to remain vigilant, not only having a healthy wariness of the wiles of our adversary, but also remaining watchful for the return of the One in whose hands the only real solutions rest.

That being said, healthy skepticism can be a handy tool to have in these last days. It's like the old joke: just because you're paranoid, it doesn't mean they *aren't* out to get you. But our "paranoia" should lead us not to fear but to faith, not to violence but to vigilance, to a heightened awareness of our situation. Our reliance (if we're smart) must always rest with Yahweh, but it never hurts to be well informed about what to pray for.

With that in mind, I should also point out that these shifting sands beneath our feet—these contemporary trends that conspire to tell us that the prophets of Yah were right all along—are not in themselves things we should waste much time trying to fix. They are merely symptoms of a much larger problem: indicators that the world has abandoned Yahweh in favor of counterfeits, substitutes, and distractions. Our job as believers in these Last Days is the same as it has always been—to *love*. We are to seek the lost, nurture the saved, and honor the God who gave us life.

## Appendix 3 Secular Chronology Confirmation

How current trends corroborate the Bible's revealed timeline

## WORLD DEMOGRAPHICS

This world is not the same place it was even a hundred years ago. We are far more crowded, far more likely to live in cities than in rural settings, and far more dependent on things that come from somewhere else. Generally speaking, we are far better informed (or at least we *can be*) but we seem to show less wisdom and common sense in our everyday decisions than our forebears did. We are far less likely to grow up in traditional two parent households (and when I say "traditional," I mean what was normal and customary for the past six thousand years, no matter what culture you lived in). Despite quantum leaps in medical science that have greatly reduced the incidence of infant mortality, a baby is far less likely than ever before to be allowed by its mother to draw breath at all. Today we are less moral but more mobile than our great grandparents ever were. We are less healthy, but more health conscious. We are less grounded and more gullible: there has never been a generation with more opportunities for learning, yet with such a shallow perception of how our world works.

In short, how we live has changed dramatically over the past century, no matter where that is. And the pace of that change is increasing exponentially. How long can this trend continue? Consider these factors:

## Explosive Population Growth.

It makes for the classic "hockey-stick" graph: the world's human population remained relatively constant, at about a quarter-billion souls, from perhaps 500 B.C. until the middle ages, at which point it began creeping slowly upwards. We didn't hit our first billion until 1804. Then the world's population doubled to two billion in only 123 years, in 1927. The three billion mark was hit in 1961; four billion in 1974; five billion in 1987; six billion in 1999; and seven billion in 2011. In roughly rounded terms, for the past half century the earth has been adding a billion people every twelve years.

So at the current rate of acceleration in population growth, by the time we reach our hypothetical "target date" of 2033, the earth will host about nine billion people—unless, of course, something happens in the meantime to change the

picture (something Biblical prophecy blatantly predicts). Can a world that's struggling to feed its seven billion present inhabitants cope with the *nine* billion we can be expected to have before today's toddlers are old enough to procreate? The answer is pretty obvious. Left to its own devices, the earth will eventually prove to be unequal to the task of providing for its top species (never mind the lower orders).

Christians, of course, can rest (as always) in Yahweh's provision—knowing that He is capable and willing to solve *any* problem, if only we'll trust Him. (The earth could easily support two or three times that population, you understand, if the right amount of fresh water were available in the right places—something Yahweh could do with a yawn and a shrug, but *won't* as long as the human race is in rebellion against Him. I'll discuss the "water" factor a bit later.) Muslims have a different "solution" for overpopulation in mind (as we shall soon see), involving the murder of everyone on the planet except for them—something they call "peace." (That's pretty ironic, considering the fact that Muslims have always been far more lethal to each other than they've been to us "infidels.")

Atheistic secular humanists, when they're being candid, also voice unspeakable opinions on how the earth's population bomb should be defused. An article that appeared on *Prison Planet's* website on April 3, 2006 reported: "A top scientist gave a speech to the Texas Academy of Science last month in which he advocated the need to exterminate 90% of the population through the airborne ebola virus. Dr. Eric R. Pianka's chilling comments, and their enthusiastic reception, again underscore the elite's agenda to enact horrifying measures of population control.... Saying the public was not ready to hear the information presented, Pianka began by exclaiming, 'We're no better than bacteria!' as he jumped into a doomsday malthusian rant about overpopulation destroying the earth. Standing in front of a slide of human skulls, Pianka gleefully advocated airborne Ebola as his preferred method of exterminating the necessary 90% of humans, choosing it over AIDS because of its faster kill period. Ebola victims suffer the most tortuous deaths imaginable as the virus kills by liquefying the internal organs. The body literally dissolves as the victim writhes in pain bleeding from every orifice." Lovely.

Dr. Pianka may be insane, but he's by no means alone. The movers and shakers of the global progressive elite are all in lock step with the goal of genocide in the name of "saving the human race." David Rockefeller's opinion sets the tone: "The negative impact of population growth on all of our planetary ecosystems is becoming appallingly evident." I would counter this with the assertion that twenty people who refuse to honor the God who made them is twenty too many. In other words, it's not the number of people; it's the quality of life they live—the degree of harmony and synchronicity they share with Yahweh. Just my opinion, of course.

John P. Holdren, "science" adviser to Barack Obama, opined, "The development of a long-term sterilizing capsule that could be implanted under the skin and removed when pregnancy is desired opens additional possibilities for coercive fertility control. The capsule could be implanted at puberty and might be removable, with official permission, for a limited number of births." Never mind "life, liberty, and the pursuit of happiness." Never mind the fact that the U.S. birth rate has already fallen below the "replacement" factor of 2.1 children. Never mind that the issue that put the progressive elites into power, "women's reproductive rights," includes (even by the most liberal of standards) not only the "right" to kill your children in the womb, but also the right to *bear* them when you finally think it's convenient. With the liberals in charge of a program like this, guess who would be the first to be denied permission to reproduce? Christians, Jews, Conservatives, home-schoolers, gun owners...

Entertainer Bill Maher (who actually thinks he's funny) is not joking when he says, "I'm pro-choice, I'm for assisted suicide, I'm for regular suicide, I'm for whatever gets the freeway moving—that's what I'm for. It's too crowded; the planet is too crowded and we need to promote death." Really, Bill? How's about we begin with *you*? Your hypocrisy is showing.

CNN Founder Ted Turner has no idea how ironic his dream for a better world is. He thinks, "A total world population of 250-300 million people, a 95% decline from present levels, would be ideal." Why is this ironic? Because (if you'll recall) that was the rough number I estimated would enter the Millennial Kingdom of Yahshua the Messiah—after the man-made terrors of the Tribulation and the demonic aftermath. (The "wrath of God" in practice consists mostly of His ceasing to restrain people from killing each other.) One "flaw" in Turner's plan: there won't be a single atheistic secular humanist among them.

Tell me again—Why do they call these people "humanists"? They don't seem to like humans very much.

As with the Islamists, the secular humanist solution is to "kill everybody but us." What both groups are forgetting, of course, is that neither of them is particularly productive: they're mostly parasites, living off the labors of others you know: the "suckers" with their "Judeo-Christian work ethic." Once they've killed off the host, the parasites will invariably turn on themselves in cannibalistic rage. You can't run a master-slave state if you've murdered all the slaves.

It should be noted that the Bible's prophetic scenario, which foresees a similar percentage of population reduction, does not suggest that Christians or Jews—or even God Himself—will be (or should be) responsible for the deaths of the

wicked. All Yahweh intends to do is cease restraining mankind from acting on its own self-destructive proclivities, and maybe stop providing His bounty (like water, food, and light) in such magnanimous profusion. He will remove the Christians, sequester the Jews, and let the rest of the world do whatever it wants for seven years, anyway. As Christ pointed out, if the Tribulation didn't have a time limit imposed by God's plan, no flesh would live through it (see Mark 13:20). In a pattern we see recurring throughout scripture, God won't kill anyone *personally* until they've invaded the Promised Land with genocide on their minds.

The bottom line, then, is that at the present pace, the earth's population will grow to an unsustainable level by the fourth decade of the twenty-first century. Ironically, it has taken us six thousand years to comply with Yahweh's very first commandment to mankind: **"Be fruitful and multiply; fill the earth and subdue it."** (Genesis 1:28) But if God's word can be trusted (and I think you know where I stand on that issue), the ultimate "filling of the earth" will be of an entirely different sort: **"For the earth will be filled with the knowledge of the glory of Yahweh, as the waters cover the sea."** (Habakkuk 2:14)

#### Shifts in Religious Demographics

A hundred years ago, you could plausibly label the nations of the world by their dominant religions. You could say, these nations are Christians (at least nominally), these are Muslims, these are Hindus, and these are Buddhists or Sikhs. Birds of a feather, as they say, flocked together. But today, several factors have converged to change that picture dramatically. As we have noted, the world's population has more than tripled in the past century, creating pressures that were previously unknown. Add to that the ramifications of Daniel's prophecy of the time of the end, **"Many shall run to and fro, and knowledge shall increase"** (Daniel 12:4), and we see multitudes of people emigrating to lands foreign to them, seeking refuge from the grinding poverty and political tyranny their native cultures have imposed upon them.

But unlike the Christian pilgrims of old, these refugees aren't (for the most part) fleeing from religious oppression. Rather, their plan is to bring the religious oppression of their native lands with them, transplanting it into their new homes. They don't seem to realize that the hard lives and lack of opportunity they wish to leave behind are the direct result of their belief in gods other than Yahweh. By far the most statistically significant pilgrim population over the past few decades, of course, is composed of Muslims fleeing Islamic Middle Eastern and North African regimes in search of prosperity and promise. And the countries to which they are fleeing (mostly in Europe and America) invariably have long histories as "Christian" nations (in name if not in fact). What's wrong with this picture? First (and most obvious), if the immigrants don't leave Islam behind, they are doomed to the same sort of slavery (though perhaps with better scenery) that they were trying to leave in the first place. To the man with Limburger cheese in his moustache, the whole world stinks. Or to put in the Torah's terms, you can't cure your leprosy by leaving the leper colony and moving back into the city—that will only spread your disease to others, doing you no good. I am reminded of Yahshua's illustration (Matthew 12:43-45) of a demon leaving a man, seeking rest and finding none. The devil then goes back to his original host, but takes seven spirits with him who are even more evil than himself, so the man ends up worse off than ever. The point is that you can take the man out of the mosque, but if you don't also take the mosque out of the man, he will carry his putrid religion with him wherever he goes, spreading it like a cancer. But it's actually even worse than that. In the long run, it will do no good to turn one's back on Islam if Yahweh's word isn't embraced in its place. Merely substituting one dead religion for another isn't really progress.

Second, if the Muslim migrants were looking to settle in a society that God had blessed, they're about two generations late (in the case of America) or two or three hundred years (in the case of Europe). I realize that they don't know Yahweh as God, but the reason they want to come to America or Europe (even if they don't know why), is that this is where Christianity once took root—where the true and living God once blessed the faith of its inhabitants, however flawed it was. The Muslim pilgrims may hate Christianity, but they kind of like the things that go with it, the things that grow out of it—freedom, justice, civility, honor, opportunity, and even prosperity. Civilization, however, is like an aircraft carrier—it doesn't stop on a dime. Europe hasn't had much of a relationship with the God of the Bible for half a millennium. Even though Great Britain and Scandinavia dragged their heels in the apostasy department, they too are pretty much a lost cause today. America is what you might call "bipolar" when it comes to rebellion against God: although the nation as a whole has abandoned Him, there remains a sizable minority here who still revere Him and keep His word. (The "hot spots" of faith these days seem to be in Asia and South America, where pockets of Christianity are flourishing today much as it did in the early church i.e., amid persecution and trial.) Anyway, my point was that the residual evidence of God's blessing on America, and even Europe, didn't evaporate the moment our country turned its back on Him. And that blessing (though not its Source) is something Muslims covet with every fiber of their being.

So when Muslims (and others) flee the cultural cesspools in which they were born and emigrate to post-Christian countries, it's like jumping off a sinking ship into a sinking lifeboat. The long term prospect is identical. The problem isn't only a steadily increasing population of Muslims (in both relative and absolute terms) in formerly Christianized nations. It's the abandonment of the God of Christianity by the vast majority of those nations' citizens—citizens whose great-grandparents would have at least feigned Christianity.

I'm not saying that religious pretense is necessarily to be preferred to a secularized society. Yahshua warned us that we could only enter into Yahweh's presence through the "narrow gate," and that the broad way—even if it looks "religious"—leads to destruction. But in a homogenous, nominally Christian culture such as the one in which I grew up in America in the 1950s, one could at least pursue the things of God without government harassment if he wished to do so. In this country, however, freedom of religion (one of our founding principles) has been subtly twisted into freedom *from* religion. Separation of church and state (an excellent idea, one the Europeans never embraced) has been reinterpreted to mean that the church and the state must be adversaries. And *that*, of course, makes the whole perverse premise a self-fulfilling prophecy.

At least, that's what the "separation of church and state" issue looks like from the outside. The truth is somewhat more sinister. Church and state—in both America and Europe, and actually, throughout half the world—are now in lock step with each other—but the "church" in this context is no longer a religious organization based on the life and mission of the Son of God. Now, the "church" is atheistic secular humanism—still a religion in every sense of the word. Their "god" is Satan (masquerading as blind chance); their "priests" are left-wing politicians, scientists, academics and entertainers; their "heaven" is the promise of power, sex, and money; their "offerings" are the taxes they impose upon the populace; and their "parishioners" are the fools—useful idiots and fellow travelers—who buy into their lies. (The "heretics" in this twisted system are now the Christians!) This shift in religious demographics has gone on under our very noses, and despite the warnings from scripture, we either didn't see it coming or were powerless to stop it. It's small comfort that the prophets and apostles warned us of the character of these evil days.

Furthermore, although the demographic percentages haven't changed much, the *characters* of the world's two largest religions—Islam and Catholicism, together comprising over half of humanity—have undergone subtle but significant shifts in the past century or so. With Catholicism, it's increasing levels of compromise—usually disguised as ecumenicism today. First it was the "don't ask, don't tell" policy that characterized their dealings with Nazi Germany. Since then, the Roman Catholic church (perhaps in a desperate effort to reclaim some of its bygone influence) has reached out to Orthodox churches and liberal Protestants, and (going beyond the boundaries of classical ecumenicism) has engaged in what they call "interfaith dialogue" with other faiths, such as Hinduism and Islam. The famous photo of Pope John Paul II kissing the Qur'an sort of says it all.

With Islam, the shift in character has been away from mindless (and relatively benign) traditional religiosity, and toward fundamental compliance with their scriptures—the Qur'an, Hadith, and Sunnah—which are based almost entirely on what Muhammad did, said, and thought. This is bad news for the rest of the world, because those scriptures teach that Islam is to be imposed upon the whole earth, by stealth or by sword—whatever it takes. The recent trend toward Islamic terrorism is the direct result of Muslims paying more attention to their scriptures. Jihad is not "spiritual struggle," as they'd have you believe, but (as the Noble Qur'an notes on Surah 2:190), "Jihad is holy fighting in Allah's Cause with full force of numbers and weaponry. It is given the utmost importance in Islam and is one of its pillars. By Jihad Islam is established, Allah's Word is made superior, and Islam is propagated.... Jihad is an obligatory duty in Islam on every Muslim. He who...does not fulfill this duty, dies as a hypocrite." Oh, and by the way, these Muslim "hypocrites" are said to be consigned to the hottest fires of hell—their fate is said to be even worse than Jews' or Christians'. It you really believe this stuff, flying airplanes into tall buildings makes perfect sense.

What all of these things have in common is man's tendency to concentrate power—elevating those few who have it, the elite, above the masses who don't. The demographic shifts I've mentioned are actually part of something even larger and more pervasive. The Bible has a code word for it: it's called Babylon, and it manifests itself three ways: in religion, in politics or government (including military matters), and in finance and commerce. In these three "flavors" of "Babylon bouillabaisse" (all of which smell mighty fishy) we can now see a decided trend developing toward the accumulation of power and influence the hands of a few powerful individuals. If the trend continues at its present pace, by the fourth decade of the twenty-first century *all* of the earth's power, wealth, and worship could be concentrated in the hands of a single all-powerful individual just as the Bible predicts: "And authority was given him over every tribe, tongue, and nation. All who dwell on the earth will worship him, whose names have not been written in the Book of Life of the Lamb slain from the foundation of the world." (Revelation 13:7-8)

### Populations in Poverty

"Poverty" is largely a matter of perception. In some cultures, a man who owns three pigs is considered wealthy beyond the dreams of avarice, while in America, a family of four with an annual income of \$23,000 (a number that increases every year) is said to be "living in poverty," even if they've got a roof over their heads, running water, food, transportation, cell phones, and cable TV. Coming in "below the threshold" makes folks eligible for government handouts like welfare, food stamps, free school lunches, medical care, and free cell phones—all things that raise their *effective* income. So (while genuine poverty exists) it is not surprising that in America and like-minded quasi-socialist nations, some people have developed "gaming the system" into a fine art—and a lifestyle. Poverty can pay off handsomely if you have no self-respect and you believe that the world owes you a living. But as Margaret Thatcher once famously remarked, "The problem with socialism is that eventually you run out of other people's money."

The sad fact is, we actually reached that point some time ago. The "developed" world is so far beyond "broke," there's nothing but momentum and ignorance holding the whole economic system together. We (the human race) are like a man who has jumped off a tall building but hasn't yet hit the sidewalk. We're "dead," even though we're technically still alive. It's only a matter of time and natural forces (gravity, momentum, terminal velocity, wind resistance...) before we're a puddle of goo on the pavement.

You may be saying, *Are you nuts? The Dow is near its highest level in history; there are poor folks, to be sure, but there are also rich people, making more money than ever before.* Yes, if you're lucky enough to be employed (don't believe the published figures, by the way—they're manipulated for political expediency), you may be making more *dollars* than you used to. But you're forgetting about the hidden tax called inflation that's built into the world's monetary system. If it's not in double digits (as it was during the Jimmy Carter era) inflation is taken in stride by most people, even though it eats into their resources like termites eating a house. Over time, the cumulative effects can be devastating. A hundred dollars today has the purchasing power that \$3.48 had back in 1900. When I was a young man, the maxim was that if you "earned your age" (for example, if you made \$30,000 a year as a thirty year old), you were rich and successful. Today, those figures are flirting with the poverty line.

Inflation is no accident, no fluke. It is the natural—*planned*—result of monetary policy, not just in the United States, but worldwide. It all has to do with the money supply—something that is controlled by rich bankers in smoke filled rooms—*not* by governments, though they do share incestuous relationships with them. These "central banks," as they're known, control the supply of currency in circulation. They have discovered that they can control the rate of inflation (adjusting it to politically survivable levels) by controlling the interest rates at which they loan money to their respective nations or confederacies (such as the European Union), and by increasing (or theoretically, decreasing) the supply of currency in circulation—a.k.a., printing money. (Lately, they've been calling it "Quantitative Easing"—which is some sort of sick joke, like calling the stunningly expensive Obamacare fiasco the "Affordable Care Act.") Market forces no longer have anything to do with it.

So where do the central banks get the money to loan to their governments? They don't. Wealth is no longer based on tangible assets (like precious metals) held in trust. "Money" is now *created* in tandem with debt. (I'll discuss the looming debt crisis under a separate heading.) The idea is, when you pay off the debt, the money supply shrinks in proportion. The problem is, in the real world, the debts are *never* paid off. If politicians did that, the people whose votes they've bought with welfare boondoggles and pork-barrel spending would tar and feather them and run them out of town on a rail. *How dare you take away my free lunch!* The trick for politicians, then (who's *only* goal is to get in power and stay there) is to create the *illusion* of prosperity, equality, and progress, even though we're actually losing ground. They do this by spending every dollar (or euro, yuan, peso, pound, or ruble...) they can tax or borrow in the hope that the majority never catches on to the fact they have, in fact, been sold into slavery: a prison of poverty from which there is no escape (short of a total reboot of civilization—something the Bible predicts, in so many words).

The trend—one that is accelerating as I write these words—is toward the creation of a civilization in which the central government seizes the lion's share of the available resources and uses it to "take care" of its citizens' every neededucation, health care, child rearing, transportation, food supplies, energy, housing, etc. If this sounds familiar, it should: the Soviets tried it for seventy years, and it was a dismal failure at every turn: millions died for no other reason than "central planning." The current term used to describe this philosophy is the "nanny state," the idea being that the citizen-sheeple are too stupid to know what's really good for them; they're like small children—they need to be protected, even from themselves. These "children," of course, are supposed to be grateful to be "cared for" like this from cradle (should they be lucky enough to elude the abortionist's cranioclast) to the grave. What the politicians are hoping we never realize is that *children own nothing*: everything belongs to their "parents," who can take it away in a heartbeat if they step out of line. It works out okay in families, for the most part—where parents naturally love their children and are willing to sacrifice themselves for their kids' well-being. But with governments, the "kids" are only there to mow the lawn, walk the dog, and take out the trash. Love never enters into it.

What happens when the socialists "run out of other people's money?" Although that train has already left the station, the day of reckoning (when everyone at last realizes what has been done to them) is fast approaching. If history is any indication, those in power will once again fire up the printing presses, printing even more money, food stamps, vouchers, and freebies—all of which will become worth less (and eventually *worthless*) as a result. One example: Europe, Britain, and Canada have been laboring under state-run socialized health care systems for decades (something with which the Americans are only now beginning to deal). The inevitable, predictable, and historical result? Yes, health care is "free." But it's also *unavailable*. You can't get the operation or the care you need in a timely fashion—at any price; the practice of medicine is no longer run by doctors, or even insurance adjusters, but by bureaucrats—politically motivated bean counters. Eventually, people stop studying for careers in the health care profession, because there's really no point to racking up hundreds of thousands in student loans if you can't earn a decent living as a doctor. In the end, it doesn't matter how much money (or what kind of insurance) you've got: as far as your health is concerned, you'll end up living in what amounts to dire poverty, because there's no one available to treat what ails you.

And that's just *one* area of your complex life. Name a profession, name an endeavor, and the story is the same: once the government (or the people behind it) have declared themselves to be "god" (a.k.a. your "nanny") then personal poverty (in one form or another) will inevitably result. We've seen it in medicine, labor, energy, education, food production, and the list goes on: what used to set folks back three dollars and forty-eight cents now costs you a hundred bucks. If the trend continues at its present pace, the world's populace will awaken to the reality of their chains by roughly the fourth decade of the twenty-first century—and the resulting upheaval will testify to the truth of the warning of the prophet Habakkuk: "Will not all these take up a proverb against him, and a taunting riddle against him, and say, 'Woe to him who increases what is not his—how long? And to him who loads himself with many pledges'? Will not your creditors rise up suddenly? Will they not awaken who oppress you? And you will become their booty." (Habakkuk 2:6-7)

### Abortion and the Demise of the Family

The poverty issue comes into sharp focus when we view it through the lens of family structure. Although "stealth" poverty affects us all, real, tangible hardship is felt far more deeply when we abandon the "traditional" family—two married parents (*of opposite sexes*—I can't believe I had to add that), living under the same roof raising their children together.

That's not a politically conservative "talking point." The statistics tell the tale. These numbers are for the U.S., but they're similar throughout the developed world. A recent survey reveals that 6.2% of all families live in poverty. That's doubtless a little higher than it has to be, but as Yahshua reminded us, "The poor you will always have with you." Compare that, however, to the rate for single-parent households (either moms or dads): the poverty rate was 27.3 percent—over four times as high; and for single-*mother* households, the poverty rate was a whopping 29.9%. *Policymic.com* reports: "Children in non-intact families face a higher risk of poverty throughout childhood. By age six, 68 percent of children in non-married households had experienced at least one year of poverty, compared to 12 percent of children in married households.... By age seventeen, 81 percent

of children in non-married households had experienced at least one year of poverty compared to 22 percent of children in married households." In other words, kids are *four to five times* more likely to live in poverty if their parents aren't married to each other and living together.

"Among children whose parents divorce, those with mothers who remarry are least likely to be poor. There was a 66 percent reduction in poverty among children whose divorced single mothers remarried and a 40 percent reduction in poverty among children whose mothers cohabited following a divorce." So having a man around the house is better than nothing, but not nearly as good as having a committed, devoted man—a *husband*. (The etymology of the word comes as no particular surprise: it's derived from "house-band.") "The poverty rate of children whose divorced mothers remarried was 9.4 percent, while the poverty rate of children whose divorced mothers cohabited was 28.8 percent. The poverty rate of children whose divorced mothers remained single was 42.4 percent."

Furthermore, "Marriage reduces the risk of poverty for both employed and unemployed single mothers. The likelihood of single, unemployed mothers being in poverty dropped from 100 percent to 35 percent if they marry the father of their children." *Policymic's* point was that the country's tax structure should be revamped to eliminate the "marriage penalty" that puts married couples at a financial disadvantage. While I'd have to agree, there are far larger, more fundamental issues to solve here.

The worldwide demographic shift away from marriage has been going on for the past half century. Half of all marriages end in divorce. Couples are more and more likely to cohabit before (or in place of) getting married. And the average age of people getting married is creeping steadily upward: today, half of men don't marry until at least about age 29, and half of women don't marry before they're about age 27.

And what about children? *Forty-eight percent* of "first children" are born out of wedlock, and although the numbers vary by nation, the percentages of births to unmarried women have doubled or tripled over the past half century. Wikipedia reports that "In 2009, 41% of children born in the United States were born to unmarried mothers (up from 5% a half century ago)." Let that statistic sink in: that's an increase of over *eight hundred percent* in illegitimate births over the past fifty years.

The numbers are even worse among minorities: "...That includes 73% of non-Hispanic black children, 53% of Hispanic children, and 29% of non-Hispanic white children.... Nearly 40 percent of American infants born in 2007 were born to an unwed mother...." Remarkably, "Latin America has the highest rates of non-marital childbearing in the world (55–74% of all children in this region are born to unmarried parents). In most countries in this traditionally Catholic region, children born outside marriage are now the norm." The Roman Catholic church has a strict policy of "fidelity, chastity, or abstinence," depending upon one's marital status—and divorce is an anathema to them (all of which I agree with). So the statistical disconnect between Catholic dogma and Catholic culture speaks volumes about the Church's lack of credibility in its own backyard.

In the past, illegitimacy was seen as an obstacle to overcome. People conceived out of wedlock were often "driven to excel in their endeavors, for good or ill, by a desire to overcome the social stigma and disadvantage that attached to it," hence the exploits of such eccentric "luminaries" as T.E. Lawrence (a.k.a. Lawrence of Arabia), Steve Jobs (of Apple Computer fame), John Wilkes Booth (the assassin of Abraham Lincoln), and Barack H. Obama (the 44<sup>th</sup> president of the United States, who was so insecure, his profligate spending added more to the national debt in four years that all of the presidents who preceded him *put together*).

What happens, then, when illegitimacy becomes the norm? What happens when half of an entire generation still has the economic disadvantages, but the social stigma is now personal and internal, not public and cultural—when half the people you meet have this nagging feeling in the backs of their minds that "my mother was a slut and my father was a spineless weasel—I'm on my own." Is it really so shocking that the traditional morals and standards that used to hold society together are not particularly high on their list of priorities? And is it really so surprising that the concept of God as a "heavenly Father" has no positive connotation or association with half the people you meet? (This, of course, us just as Satan planned it.)

Nor it is not terribly surprising that four out of ten people in America, the last bastion of cultural Christianity on earth, now believe that marriage is obsolete. If the mainstream media were to be believed, the only people who really *like* the idea of marriage any more are homosexuals.

### Sigh.

As a man who has been happily married for forty-five years, who with my wife raised eleven children, and who has enjoyed the providence of God my entire life, none of these statistics make any sense whatsoever. I have a sneaking suspicion that the whole thing stems from the advent of the birth-control pill in the 1960s, paired with the realization that mindless religious tradition (in lieu of real Christian faith) doesn't have anything to offer.

Having come of age in the '60s myself, and having been part of that generation (as an observer, not a willing participant), I *know* how the thought progression went: (1) We're young and in love, and we want to have sex, but we

were afraid of getting pregnant, with all that responsibility. Now that we have the pill, that worry is gone. (2) Gee, now that pregnancy is off the table, so is fidelity. Why restrict my sexual encounters to someone I'd want to spend my whole life with? There are plenty of fish in the sea. (3) Drugs and rock-and-roll seem to go nicely with sexual license, don't you think? (4) Love? Can't really remember what that is, dude. But I'm tired of singles bars and one-night stands. I could use a little stability in my life, if only to get a good night's rest once in a while. (5) The company I work for seems to like established, responsible types—you know, with 2.3 kids and a dog in the backyard. Let's get married. (6a) I don't really love you anymore—truth is, I'm not sure I ever did. I'm sick to death of all your "issues." And the kids are more or less grown up now. I want a divorce. Or, (6b) after all this time, I've gotten used to you and all your quirks, and I don't want to be alone, not at my age. I may not love you, but at least we're finally financially secure, so let's stay married.

Pretty cynical, I know. It's a sad commentary on half my generation and the ones that followed. My ideal of how "traditional marriage" *ought* to progress sounds downright radical in comparison: (1) We're young and in love, so with our parents' blessing and support, we're going to get married *now*—committed to each other to face life as we find it together, come what may, for richer or poorer, 'til death do us part. (2) We don't have money to buy each other fancy gifts, but you're all I want anyway. (3) Getting to "know" you (in the Biblical sense) is more fun than I ever could have imagined. I wouldn't trade your love for anything. (4) We've got a baby on the way? Praise God! (5) Thank you, Father Yahweh, for this new life. We dedicate ourselves to raising this child in Your love, just as You have loved and provided for us. (6) Again? Could our life get any sweeter? (7) The last of the kids just moved out. I pray that they study hard, honor God, and make wise choices. As for me, the best choice I ever made was loving you. (Well, maybe the *second* best—the first being the choice to love the One from whom love comes in the first place: Yahweh.)

So, is marriage obsolete? Not in my book. But it has to be *marriage*, not merely a partnership of pleasure or convenience. Two-part epoxy won't hold anything together unless part A reacts chemically with part B—becoming a whole new thing. We need to realize that marriage—one man and one woman living together in a loving, fruitful relationship for their entire adult lives—is a symbol, a metaphor, of what God wanted us to know about our potential relationship with Him. The essence of marriage is not its legality, the form of the wedding ceremony, or even its social/cultural construct. It is, rather, the unshakable commitment it promises, mirroring God's commitment to us if only we'll say "yes, I do" to Him. Our love toward each other in marriage (as it is to our God) is to be unconditional and unreserved. As I put it in a love song I wrote to my wife a long time ago (somewhat tongue in cheek), "...and I will love my own sweet wife / as long as God loves me." That's *my* idea of "unconditional."

And what was that about being "fruitful?" It occurs to me that Satan is schizophrenic: on the one hand, he encourages us to be loose and lascivious in our sexual morality; on the other, he tries to portray sex as something dirty and forbidden, so we'll feel ashamed and guilty about it. (He plays Islam like a fiddle in that regard.) But how does Yahweh (the One who invented sexual reproduction) feel about it? His initial commandment, the *very first thing* He told Adam and Eve to do (as far as we're told) was, "Be fruitful and multiply: fill the earth." (Genesis 1:28) In other words, "Go have sex, you two—lots of it."

Yahweh had created Adam and Eve to be perfect mates for each other. The depth of Adam's dedication to Eve sometimes escapes us. It seems to me that Adam's "fall" into sin may not have been exactly as we picture it. A careful reading of Genesis 3 reveals that the core of Adam's sin wasn't so much eating the fruit of the no-no tree as it was letting his affection for his wife override his devotion to God. She had been *deceived* by the serpent; she'd bought into the lie. But Adam ate the fruit with his eyes wide open. As far as he was concerned, Eve was his life—he wasn't going to let her go *anywhere* without him, even into sin, even into death. Of course, the first thing he did once he *became* a sinner was to try to shift the blame for the whole debacle onto his bride. His nature had become corrupt. Ironically, his commitment to Eve in the wake of her disastrous decision made Adam unable to help her. We've all done stupid things for love. I think this is where the practice started.

But I digress. We were talking about marriage and family—fruitfulness, the way Yahweh ordained it, as opposed to the moral anarchy we see permeating society today. This whole article is a study of world demographics, and how the trends point toward a disastrous paradigm shift in the coming decades. The only way the world's population grows is through sex. As we have seen, Yahweh promotes sex between a man and a woman who are committed in love to each other for life—something defined as "marriage," a picture of our relationship with Him. Satan apparently likes the idea of sex as well, but only if it can be used as a tool to destroy the relationships of mankind—whom he hates and envies with every fiber of his being. So he promotes sexual contact, but only between people who aren't married, people who don't even know each other, or people of the same gender. Adultery, fornication, homosexuality, prostitution, pedophilia, rape, bestiality, necrophilia, and any other perversion he can think of are the devil's attempts to obfuscate Yahweh's beautiful symbol.

Sex within marriage, of course, leads to pregnancy, as do some of these Satanic perversions. Pregnancy promises an increase in the population, which, as we have seen, is suddenly growing at an alarming rate—adding a billion souls to the earth's population every twelve years or so (at the present rate). That is, about 133 million people are born in this world every year, but scores of millions die as well: the net gain (recently, anyway) has been somewhere north of 80 million souls annually. But there is another factor that must be considered if we want to get a firm grasp on the reality of world demographics in these Last Days. That factor is abortion.

The World Health Organization reports that between 40 and 50 million abortions are performed annually. The number is hard to pin down because in places where terminating a pregnancy isn't legal, the procedure tends to be vastly underreported (and the victims—the aborted children—are in no position to blow the whistle on the perpetrators). As a working statistic, let's split the difference, and estimate that the number is somewhere in the neighborhood of 45 million abortions per year, worldwide (of which a "mere" 1.3 million are performed in the United States). To put this in perspective, 133 million children are born annually into this world, but there were 178 million pregnancies. That is, *one child out of every four* is murdered in the womb before he or she can see the light of day.

I'm not God (obviously) but I've been given a tiny glimpse into what this might feel like for Him. My wife and I raised eleven children, of whom the last nine were adopted. Several of these kids were disabled to one degree or another some severely. One of our adopted daughters died at three, and another at tenboth after beating the odds against them for years, living far beyond what their medical prognoses indicated. Then, a month ago (as I write this), a third handicapped daughter passed away from complications of Post-Polio Syndrome and Huntington's Chorea. She was thirty-eight. So we've lost about a quarter of our kids. As sad and as empty as my wife and I feel when we remember our beloved Molly, Jill, and Marianne, we still rejoice that they are now in the presence of God, and will soon be clothed in bodies that actually work the way they're supposed to. But would I feel the same way if an intruder had broken in and murdered them in their beds, under our very noses? No! There would be an element of anger in my memory that wouldn't go away until the perpetrator was caught and punished. That has to be the way Yahweh feels when he hears the blood of 45 million innocent children crying out to Him—every single year.

*Why?* What possible reason could someone give for justifying such unspeakable carnage? How's this for a little perspective? In the land of Canaan about thirty-five hundred years ago (you know, the *only* time in history when Yahweh ordered the genocide of an entire indigenous people), Molech worshippers routinely sacrificed their children. They burned them alive by placing them in the red-hot arms of a metal statue of this bloodthirsty Babylonian god (also known as Chemosh, Milcom, Ba'al, Cronus, Saturn, etc.—the name means "king" or "lord") in hopes of being granted material prosperity—bountiful crops and increased flocks and herds.

Ancient history? Not even a little bit. Today, ninety-three percent of all abortions are performed because (if the parents are to be believed) the child is deemed "inconvenient" in some way—a burden that might negatively impact the lifestyle or prosperity of the mother and/or the father. Thus I would submit to you that there is no appreciable difference (as far as motivation is concerned) between modern abortion practices and iron age Molech worship. As we've seen, approximately 45 million abortions are performed annually worldwide. This means that 40 million children—two thirds of the total horrendous death toll of World War II—are sacrificed *every year* on the insatiable outstretched arms of the image of Molech. And we wonder why Yahweh is still angry.

A devil's advocate might argue that 45 million fewer births per year are merely "a good start"—that with the population bomb ticking away (as we saw previously), the whole thing is likely to "blow up in our faces" by the fourth decade of the twenty-first century. If anything (he'd say), *more* should be done to "decrease the surplus population" (in the immortal words of Ebenezer Scrooge). We've already read of Dr. Eric R. Pianka's insane scheme to wipe out 90% of the earth's population (presumably not including himself) using the ebola virus.

Mad scientists are one thing; governments with absolute power within their own borders are another. China, the most populous nation on earth, decided back in the 1970s to limit the births of its population to one child per family (this after decades under Mao Tse Tung's policies designed to *increase* the Chinese population for strategic purposes). Though riddled with loopholes and exceptions, and unevenly enforced, the Chinese government insists the program has been marvelously effective, lowering the total population by up to 400 million below what it might have been (which sounds suspiciously like our government counting theoretical jobs being "saved or created"—in other words, statistics based solely on wishful thinking and political expediency).

It is not my purpose to pass judgment on the wisdom or efficacy of China's one-child policy. But I would like to remark on the law of unintended consequences. Sixty years of Communist rule did nothing to change two millennia of ingrained cultural predispositions in China. The fact is, male children are coveted far above females in that society, for males are seen as breadwinners, providers, and (more to the point) the ones who will be responsible for taking care of their parents in their old age. (As in so many cultures historically, girls are expected to marry, thus becoming part of the support structure for the *husband's* family, not her own parents.) So what happens when a traditional Chinese couple, knowing they are allowed only one child, discovers their baby is going to be a girl? (With the advent of amniocentesis, fetal gender can be determined as early

as eight or nine weeks of gestation.) Abortion—something the Chinese Communist government makes ridiculously easy—immediately springs to mind. Or what if the parents of one child discover that mom is pregnant again? Again, abortion (forced or otherwise) is on the table.

Here are a few statistics to ponder: 55 percent of all women in China have had at least one abortion. As many as half of all abortions in China are due to prenatal sex selection. Since 1971, doctors in China have performed 336 million abortions (many of them forced), have performed 196 million sterilizations (again, mostly forced), and have inserted 403 million intrauterine devices. Is it any wonder that the female suicide rate in China is three times higher than it is for males? (This is an unheard of statistical anomaly.) 56 percent of the world's female suicides occur in China, which has only 19 percent of the overall population.

So think ahead a bit (something the Chinese have failed to do). For the past couple of generations, China has been doing everything it could (wittingly or unwittingly) to create a severe gender imbalance—a nation with far more males than females. If the trend continues at its present pace, by the fourth decade of the twenty-first century (there's that timeframe again) they will be faced with the unenviable proposition that half of the men of marriageable age won't be able to find women to marry (never mind western-style no-commitment cohabitation)— they simply won't be available. The results? (1) The civilizing, stabilizing influence of family life will be severely curtailed. (2) The population of China will find itself aging, not because seniors are living longer, but because fewer children are being born. And (3) the frustrated, unattached males will turn to professions in which families are seen as hindrances or distractions—notably, war. Suddenly, the sixth trumpet judgment (predicted in Revelation 9:13-21) and the sixth bowl judgment (Revelation 16:12) don't seem so farfetched, do they?

So the counterintuitive bottom line, for all our cries for "peace and love" is that the human race has become, within the past few decades, the most murderous *and* most sexually deviant generation ever to have existed on this planet. Men and women refuse to make lifelong commitments to each other, forsaking every component of marriage except for sex. So our population continues to grow, threatening to outstrip our ability to feed ourselves. To compensate, we kill more people (especially in the womb), showing less remorse, than at any time previously in our history. And it's all because we—the human race—have largely turned our back on the God who made us, forsaking His instructions and His covenant. I no longer pray for peace (except for Zion). I don't even pray for revival much anymore, for the world's problem in this final generation isn't apathy or backsliding; it's *rebellion*. No, what I pray for now is for Yahweh to separate His people from the world—to make us holy, for He is holy.

# Appendix 4 Secular Chronology Confirmation

How current trends corroborate the Bible's revealed timeline

## FAMINE FACTORS

In Biblical terms, we have seen how famine is used by God to get our attention—to warn us that we've fallen short of His intentions for us. For example, in Deuteronomy 28, the infamous "blessings and cursings" passage addressed to Israel, hunger was listed as one of the very first things they'd suffer if they failed to listen to God. "But if you will not obey the voice of Yahweh your God or be careful to do all His commandments and His statutes that I command you today, then all these curses shall come upon you and overtake you.... Cursed shall be your basket and your kneading bowl." (Deuteronomy 28:15, 17) A generation previously, Yahweh had used the prospect of hunger to awaken the Israelites to their constant need for His provision—though nobody came close to starving to death. Moses reminded them: "So He humbled you, allowed you to hunger, and fed you with manna which you did not know nor did your fathers know, that He might make you know that man shall not live by bread alone; but man lives by every word that proceeds from the mouth of Yahweh." (Deuteronomy 8:3) And the Bible is peppered with instances where God used famine as a tool of judgment, a sign of His displeasure and a warning to repent.

Yahshua, in the Olivet Discourse, described the lead up to the Last Days, the signs of the end of the age: "For nation will rise against nation, and kingdom against kingdom. And there will be earthquakes in various places, and there will be famines and troubles. These are the beginnings of sorrows." (Mark 13:8) "And there will be great earthquakes in various places, and famines and pestilences; and there will be fearful sights and great signs from heaven." (Luke 21:11; see also Matthew 24:7) The United Nations estimates that 870 million people worldwide suffer from chronic undernourishment. As bad as that sounds, it's "only" about one person in eight. So most of us aren't used to going hungry.

But "famines" are listed as one of the harbingers of the end of the world as we know it. So if we're living in the last days (or the next-to-last days), we should expect to see famines in the world increasing in severity and range as the days grow short. And perhaps we ought to start looking at the phenomenon of hunger with fresh eyes. That is, are calories without nutritional value a measure of "famine?" If the foods we eat don't fuel and rebuild our bodies, are they really "foods" at all, by God's definition? It's an angle all too many of us miss, but we (as usual) need to learn to pay closer attention to God's words and works.

But let us begin by looking at the traditional understanding of famine. Historically, famines have been caused by a variety of factors, and we have every reason to expect these to be continued. Perhaps the most obvious is drought. If insufficient rain falls (or water from other sources isn't available), crops won't grow as well, and yields will be diminished. So a steady and predictable water supply (preferably the "early and latter rain" spoken of so often in scripture as a blessing from God) is essential.

Another chronic cause of famine is war—something that by its very definition disrupts the production and distribution of food supplies. Wars have always been part of the human landscape, but we are reminded that "wars and rumors of war" are listed along with famine as harbingers of the Last Days. These days, of course, wars need not be "hot." The so-called "cold war" between the Soviets and the western world did nothing to alleviate hunger in the world, stifling, as it did, the normal course of trade between nations with food shortages and nations with surpluses.

We have already seen how the trend toward the consolidation of power in the hands of a small ruling elite pushes us all toward poverty, whether we "feel it" or not. Widespread poverty, in itself, is a *de facto* cause of famine. If food is in short supply, market forces begin to have an effect on the region's degree of food security. In such cases, the poor are always the first to suffer, for if food is scarce, only the rich are in a position to flout the laws of supply and demand. In other words, even if food is available, if you're too poor to afford it, it's a *famine*, as far as you're concerned.

A related issue is politically driven famine. Perhaps the most blatant example in the last century was the *holodomor*—a manufactured Stalin-era famine in the Soviet Union in the early 1930s. As a direct result of the first Five-Year Plan, sweeping changes were implemented in the Soviet Union's breadbasket—the Ukraine and neighboring Cossack regions—forcing a formerly productive peasantry to change the way they'd successfully grown food for centuries. Herded onto collective farms and forced to grow unfamiliar "cash crops" like sugar beets and cotton (instead of the traditional grains), failure was virtually assured. Whatever grain was grown was shipped off to the cities to feed Stalin's new industrialized Russian machine, while the Ukrainian peasants starved. The jury is still out on whether the disaster was the "merely" the result of gross stupidity on the part of the Communist party "planners," or whether it was a deliberate purge of independence-minded Ukrainians and Cossacks. It probably didn't matter to the over three million souls who starved to death between 1932 and 1933peacetime years, you'll notice. Knowing how cunning and ruthless Stalin was in other matters, I strongly suspect deliberate genocide via central planning. And you wonder why I distrust big, powerful governments.

Of course, famines need not be "planned" to be man-caused. Since the end of World War II, there have been severe famines in (listed earliest to latest) Viet Nam, the Soviet Union, Ethiopia, China, Nigeria, Central Africa (Chad, Mauritania, Mali, etc.), Ethiopia (again), Bangladesh, Cambodia, Uganda, Ethiopia (once again), Somalia, North Korea, Sudan, Ethiopia (sigh), the Congo, and Somalia (again). Although droughts and wars played their part (and remember, droughts in scripture are invariably sent to encourage people's repentance, and war is merely the outworking of a people's unwillingness to trust Yahweh), virtually all of these places were (and are) plagued with either Islam or Communism of one stripe or another. Coincidence? I think not.

Natural (and unnatural) disasters also have a part to play in creating famines. When a food-producing region is subjected to extreme weather events of any conceivable kind—too hot (or cold), too wet (or dry)—or plagues of a hundred descriptions—anything from locusts, fruit flies, caterpillars, stem borers, beetles, weevils, or aphids, to molds and fungi-food production is compromised or decimated. The classic example of such a calamity is the great Irish potato famine of the mid-nineteenth century, which killed a million people (and forced the emigration of a million more-together reducing the population of Ireland by 20-25 percent). The potato had been introduced to Europe centuries before. Over the years it replaced grains and animal products among the Irish peasantry as the staple food source primarily because it grew well in the nutrient-poor Irish soil. The shift in the peasant diet was largely the result of the greed of arrogant (and absent) English landlords watching their "bottom line." Things still worked reasonably well, however, until an outbreak of "Potato Blight" (Phytophthora infestans) lasting from 1845 to 1852 decimated the potato harvest, leaving the entire working class—about a third of Ireland's entire population—with practically nothing to eat. The blight hit all of Europe, but Ireland was particularly hard hit because of a lack of genetic variation in their crop-almost total dependence on one vulnerable variety of potato, the "Irish Lumper."

The typical solution to such "plagues" these days seems to be to soak everything—starting with the seeds themselves—in chemical pesticides and herbicides, but then of course, we end up eating the poison along with the fruit and vegetables. So a whole new agribusiness model has arisen—organic produce (i.e., what they used to call "food"). And the pendulum swings back toward poverty (or should I say, the poverty that exists becomes more apparent), since organic food is far more expensive to grow and market.

One of the reasons people—even in rural settings—tend to congregate in towns or villages is that food is easier to acquire where people live together, in greater variety than would otherwise be possible. The days of growing everything you eat are largely gone: farmers these days usually grow one or two thingscorn, wheat, soybeans, alfalfa, cattle, chickens, or what have you—and their crops are for sale, not for personal consumption. Only a tiny minority have the land, leisure, and expertise they'd need to grow all of their own food: folks need *money* to pay for their property, equipment, energy, insurance, medical care, and (lest we forget) *taxes*. This in turn means that the vast majority of us are dependent on a local "marketplace" of some sort in which we can buy our food—food that's grown somewhere else and brought into town.

So cities have their neighborhood markets and bodegas, and supermarkets proliferate in the suburbs, run by companies who rely on the fact that "everybody's gotta eat." No famine here, right? Well, perhaps. But there's a disturbing trend developing in such unlikely places as big American cities: "food deserts."

This is what happens. The owners of the food stores, whether independent or chains, take a good hard look at their bottom lines. They're in business to make a profit by selling food, after all. But in certain areas—typically inner cities riddled with crime, poverty, and substance abuse—their costs of doing business are totally out of balance with their historic revenues. It's not just that they get tired of being robbed all the time. It's also that their customers can't afford to buy what they'd really prefer to sell: the prime cuts and high-margin specialty foods go begging, while beans and rice, cheap, fatty meats, and low cost "convenience" foods sell just fine. Gang bangers sell drugs and hookers solicit business openly in their parking lots. The stores' labor and security costs are too high, and their insurance premiums skyrocket—if they can get insured at all. Most sales involve food stamps or some other form of welfare assistance, so the government's stifling bureaucracy is constantly involved in their business.

At some point, the store owners decide that being open for business in these neighborhoods doesn't make any sense. It's a survival tactic, like insurance companies "red-lining"—leaving unserved—whole neighborhoods, because they just can't turn a profit there. As the inner city locations close, the residents are faced with a variety of unenviable options: travel farther to shop for food (which can be a great hardship if you rely on public transportation); buy food at local mini-marts and convenience stores (places that don't typically stock much in the way of nutritional sustenance, and what they do stock is outrageously expensive for what it is); or eat more meals at fast-food restaurants (typically, not the best nutritional choice).

For increasing numbers of poor, then, providing good nutritional choices for their families is a real problem. These "food deserts" are little pockets of stealth famine situated right in the middle of the land of plenty. Chicago, Detroit, or Philadelphia may be big, impressive cities, but that doesn't mean the people who live there can necessarily get a good meal.

### Soil Depletion

When we think of "soil depletion," we (or at least I) immediately conjure up visions of 1930s dust-bowl conditions, in which nutrient-rich organic topsoil that took thousands of years to build up was simply blown away over the course of a couple of years of drought—the result (in part) of decades of ruinous and invasive plowing practices—"overtillage," which damages the soil's structure. As we shall see, this stereotype of soil depletion merely scratches the surface of the Last Days reality. But I suppose it's as good a place as any to begin our discussion of this component of the prophesied famine.

Agricultural production began in earnest in the American Great Plains in the 1880s, replacing prairie grasses with wheat, corn, soybeans, and other crops. Since that time, about half of the region's topsoil has disappeared. Of course, the Midwest is still the nation's "breadbasket," but only because of the widespread use of fertilizers—mostly inorganic because they're less expensive and (according to the brochure) contain higher concentrations of essential nutrients than organic (i.e., life-based) fertilizers. The whole point of using artificial fertilizers is to counteract the loss of nutrients in the soil through intensive farming: as soil fertility decreases, crop yields per acre plummet. In North America, a great deal of emphasis is thus placed on "soil management," the art and science of keeping farmlands capable of producing as much grain (or whatever) this year as they did in the past. (Note that this is an entirely separate issue from *human* nutritional needs. Getting grain to grow is not necessarily the same thing as making sure it's good for you.)

What *can* happen if the nutrient condition of the soil is ignored is the horror story of the South American rain forests. Here the nutrient content is low to begin with, but increasing population densities, industrial-scale logging operations, and slash-and-burn land reclamation practices, the soil can be depleted at an astonishing rate: one or two crops after the land has been cleared of its trees, and the land is virtually worthless for growing food—its nutrients have been almost completely removed.

Perhaps that's why God placed man on a seven thousand year schedule (in our fallen state, that is), instead of, say, *seventy* thousand years. He knew the soil of the planet would have trouble "keeping up" once our population got near the seven billion mark. But He *also* told us how to keep our lands healthy, if only we'd trust Him. Let's connect the dots...

The most important element in soil nutrition—the one that's most readily depleted—is bio-available nitrogen. (Phosphorus, potassium, and sulfur are important, too, but only in relatively small amounts.) The air we breathe is 78% nitrogen, so there's no shortage of the raw element. The "trick" is to get it into the

soil in a form the plants can utilize. The first part of God's formula for healthy soil is rainfall—the "early and latter rains" that are so consistently linked in scripture with Yahweh's blessings upon mankind.

The second part (believe it or not) is lightning, which oxidizes atmospheric N<sub>2</sub> to form plant-available nitrates. You may have been wondering why God was so "unthoughtful" as to place some of America's richest soils—our nation's breadbasket—right in the middle of "tornado alley," a place where thunderstorms are apt to spawn those dreaded twisters. *Why can't we just have nice, sunny days, gentle breezes, and clear, starlit nights?* First, because you need the rain, and second, because those thunderstorms produce the lightning needed to put badly needed nitrogen back into your soil (not to mention keeping the ozone layer intact so you won't get fried by ultraviolet rays every time you walk out your front door).

The third element of Yahweh's plan for maintaining nutrient-rich soil is found in the Torah. "Six years you shall sow your field, and six years you shall prune your vineyard and gather in its fruit, but in the seventh year there shall be a sabbath of solemn rest for the land, a sabbath to Yahweh. You shall neither sow your field nor prune your vineyard." (Leviticus 25: 3-4) You would be "mistaken" to assume that just because this is found in the Bible, it's nothing but pointless religious hocus pocus. God told the Israelites (in the very next chapter) that keeping His commandments (such as this one) would result in "blessing." It's not a miracle; it's simply the law of cause and effect. If we observed the law of the Sabbath year (that is, letting the land rest, being neither cultivated, sown, or harvested one year out of every seven) the soil would remain fertile and productive indefinitely.

Here's how it works, in admittedly simplified terms: the objective (one of them, anyway) is to return nitrogen to the soil. It should be obvious by now that planting and harvesting crops year after year without a break removes this essential nutrient: every year that goes by without replenishing the nitrogen steadily diminishes the soil's ability to produce a crop. Meanwhile, however, the hydrologic (weather) cycle continues unabated. Thunderstorms spawn lightning, which combines atmospheric nitrogen with oxygen, producing a plant-usable form of nitrogen (NO<sub>2</sub>) that's brought to earth with the rain. Green plants in turn provide food for animals, creating manure (read: *organic* fertilizer—considered "too expensive" in a world that doesn't trust Yahweh), as a byproduct—something that is *supposed to be* returned to the soil, providing soil nutrients of a more complex nature than just nitrogen. (Thus the case for feed lots, as opposed to farm-raised, grass-fed cattle, looks pretty stupid, as we shall see.)

This is where bacteria enter the picture. In this context, there are two types in play: denitrifying bacteria act on plants to return free nitrogen to the atmosphere. Meanwhile, nitrifying bacteria attack manure and decaying plants in the ground:

with ammonia (NH<sub>3</sub>) from the animal wastes, nitrites are produced. Bacterial action in the soil then adds oxygen to make the nitrogen usable to plants (through their roots) in nitrate form.

If you're sharp, you've begun to see how observing the sabbath year would tend to keep the soil fertile and productive. First, and most obviously, for one whole year in the cycle, there would be no crops sucking life-giving nutrients nitrogen and other essentials—out of soil. But God's rain (rich in nitrogen because of the normal thunderstorm activity) would continue to fall. Farm animals would continue to defecate, and bacteria would continue to do their thing. Cations (positively charged ions critical to soil health—look it up) would be exchanged. Mineral balance, pH, soil aeration, and other factors would be allowed to naturally adjust themselves without man's uninformed and untimely interference.

But there's even more to it. Man's unrelenting war against weeds actually exacerbates the problem. (Google: "Roundup health dangers.") If left alone for one year out of seven, these "weeds" would merely add to the decaying organic biomass fertilizing the soil when plowed under at the beginning of the next sabbatical cycle. And remember what I said about "overtillage" being one of the causes of the "dustbowl" conditions of the 1930s? Relentless plowing, year after year, eventually breaks down the clods to the point where the soil has no adherence structure. Leaving the soil alone for one year in seven helps to reverse that problem. And what about pests? With the occasional interruption in the yearly cycle of planting, growth, and harvesting (something the insects rely on), bug populations can be kept to a manageable level.

*That's all swell in theory*, you might be protesting, *but what farmer can afford to just shut down his entire operation for one year out of seven? Haven't you ever heard of mortgages?* Yes, usury is a big part of the problem these days—combined with the predatory greed of agribusiness. But consider this: the principle could still be applied by dividing a family farm into seven sections—only six of which would be under cultivation in any given year (on a rotating basis), the seventh being allowed to lie fallow according the Sabbath principle. Once a farmer was on this system, his costs (fuel, fertilizer, pesticides, seed, labor) would be reduced enough to offset the "loss" of crop income—which in practice wouldn't really be a loss at all, because the six sevenths of his land that were "working" at any one time could (under God's plan) be expected to produce more bountifully than the whole farm could have if he ignored Yahweh's principles. This way, the land will hold up quite nicely: the only thing that will "wear out" faster than necessary is the farmer himself.

By the way, many folks have tried to torture the principle of the Sabbatical Year into a Biblical mandate for crop rotation. Sorry, guys. It's just not there. While rotating crops periodically is indeed a good way to slow down the loss of some nutrients in the soil and break pest cycles, it does nothing to address the issue of overtillage—turning dirt clods into dust. No, God's word stands. Where the land is concerned, give it a rest—and *trust Him*.

Remember: our whole reason for looking into the subject of soil depletion was that Christ predicted famine as one of the signs heralding the Last Days. Just because you haven't missed a meal lately (or ever) is that really a sign that famine hasn't touched you? Perhaps not. An article in Scientific American (April 27, 2011) points out that the foods that are available to us today, even in "first world" countries, do not deliver the same level of nutrition that they used to a generation or two ago. The article states that "Fruits and vegetables grown decades ago were much richer in vitamins and minerals than the varieties most of us get today. The main culprit in this disturbing nutritional trend is soil depletion: Modern intensive agricultural methods have stripped increasing amounts of nutrients from the soil in which the food we eat grows. Sadly, each successive generation of fastgrowing, pest-resistant carrot is truly less good for you than the one before." It's equally true for fruits, vegetables, grains, or even meats: you are what you eat. If the soil that "feeds" your food has been starved to the point of exhaustion by short-sighted and greed-driven farming practices, the nutritional value that our grandparents used to enjoy isn't available to us anymore-at any price.

The article goes on: "A landmark study on the topic by Donald Davis and his team of researchers from the University of Texas (UT) at Austin's Department of Chemistry and Biochemistry was published in December 2004 in the Journal of the American College of Nutrition. They studied U.S. Department of Agriculture nutritional data from both 1950 and 1999 for 43 different vegetables and fruits, finding "reliable declines" in the amount of protein, calcium, phosphorus, iron, riboflavin (vitamin B2) and vitamin C over the past half century. Davis and his colleagues chalk up this declining nutritional content to the preponderance of agricultural practices designed to improve traits (size, growth rate, pest resistance) other than nutrition.... 'Efforts to breed new varieties of crops that provide greater yield, pest resistance and climate adaptability have allowed crops to grow bigger and more rapidly,' reported Davis, 'but their ability to manufacture or uptake nutrients has not kept pace with their rapid growth.' There have likely been declines in other nutrients, too, he said, such as magnesium, zinc and vitamins B-6 and E, but they were not studied in 1950 and more research is needed to find out how much less we are getting of these key vitamins and minerals." We have sacrificed the essence of "food"-nutrition-on the twin altar of economics and marketing. Our fruits and veggies *look* as good or better than they ever didthey're big, beautiful, and even tasty. But they don't fuel or rebuild our bodies nearly as well as they used to. Some would call this "progress." I call it *famine*.

"The Organic Consumers Association cites several other studies with similar findings: A Kushi Institute analysis of nutrient data from 1975 to 1997 found that average calcium levels in 12 fresh vegetables dropped 27 percent; iron levels 37 percent; vitamin A levels 21 percent, and vitamin C levels 30 percent. A similar study of British nutrient data from 1930 to 1980, published in the *British Food Journal*, found that in 20 vegetables the average calcium content had declined 19 percent; iron 22 percent; and potassium 14 percent. Yet another study concluded that one would have to eat eight oranges today to derive the same amount of Vitamin A as our grandparents would have gotten from one."

When I was studying the animals that the Torah listed as "safe to eat" (in Leviticus 11) I explored the seemingly odd case of locusts—listed as Kosher, in spite of the fact that they're (let's face it) bugs. In The Owner's Manual (Chapter 5) I wrote, "Oxford University researchers have discovered that locusts will regulate their food intake: when given food diluted fivefold with indigestible cellulose, the locusts merely increase their intake-fivefold! They will also compensate for past deficiencies in their diet if given the opportunity, eating precisely the right balance of proteins, carbohydrates, and salts. So locusts and their cousins are safe to eat (which is not to say they're not an acquired taste)." Could this be one key to understanding obesity in America today? Our bodies (according to the theory) "know" they aren't getting the vitamins and minerals they need to thrive from the foods we eat-even though we're getting plenty of *calories.* So we tend to over-eat, subconsciously trying (usually unsuccessfully) to satisfy cravings for things we don't even realize we need-like calcium, potassium, or magnesium. We have become the most over-fed famine victims in history. (Well, it's a theory: I suspect I'm overweight mostly because I sit here at this keyboard for days on end exercising only my mind and my fingers.)

Lynn Berry, in *Natural News*, writes, "Dr. Linus Pauling [Nobel Prize winning founding father of both molecular biology and quantum chemistry] is famous for saying, 'You can trace every sickness, every disease and every ailment to a mineral deficiency.' The reason is that minerals are required for every cell in our body to function. If minerals are lacking in our food, vitamins are of no use because vitamins (and enzymes) need minerals for them to work in our bodies. This means that vitamin supplements would be of no use unless we also have adequate minerals.... Our focus on progress in the name of money is having significant impacts on our health. Money was the very reason why authorities did not over the past 70 years insist on sustainable farming practices, and why producers of pesticides and synthetic fertilizers held sway. So some people have benefited financially, but what use is money if it cannot buy us food that will sustain us and keep us healthy in the long term?"

Soil depletion, then, is a root cause of the "famine" that even "well-fed" people suffer today—and the root cause of soil depletion is (at least partially) the love of money. As Paul told Timothy: **"The love of money is a root of all kinds of evil."** (I Timothy 6:10) Of course, the root cause of the love of money is a failure to love, revere, and honor Yahweh. It's the First Commandment all over again: **"You shall have no other Gods before Me."** (Exodus 20:2) That includes Mammon.

If the trend continues at its present pace, by the fourth decade of the twentyfirst century much of the world's food-producing topsoil will be either depleted beyond timely restoration, or be so dependent on chemical fertilizers and pesticides it can't support even a fraction of today's massive population. And much of the food that *is* grown will be a lie—promising nutritious fuel for our lives, but delivering only empty, unbalanced calories: stealth famine. This in turn will allow diseases and ailments to proliferate in ways we haven't seen since the Middle Ages. (See the section on "Pestilence," below.)

### Genetic Pollution

I can't help but wonder if the following precepts from the Torah may include a subtle caution against genetically modified foods (commonly known as GMOs). We read, "You shall keep My statutes. You shall not let your livestock breed with another kind. You shall not sow your field with mixed seed. Nor shall a garment of mixed linen and wool come upon you." (Leviticus 19:19) And, "You shall not sow your vineyard with different kinds of seed, lest the yield of the seed which you have sown and the fruit of your vineyard be defiled. You shall not plow with an ox and a donkey together. You shall not wear a garment of different sorts, such as wool and linen mixed together." (Deuteronomy 22:9-11)

It should be obvious by now that the primary lesson Israel was to learn through this (and pass on to us) was that we are to be holy—set apart from the world for Yahweh's glory and purpose. Our "spiritual DNA," our life in Yahweh, is not to be "crossed" with the world's—we are to remain separate and pure. "Mixed seed" brings to mind the "wheat and tares" parable of Christ—one of them was fruitful and nutritious, and the other was just a counterfeit weed, bereft of any value to anyone. The linen-wool mixture speaks of a misguided attempt to blend works (wool) with grace (linen—see Ezekiel 44:18) as a soteriological strategy. The Bible, in contrast, presents God's grace alone as the door to redemption, with good works *resulting* from that salvation: evidence of the efficacy of grace, not a means of attaining it. The prohibition against plowing with an ox and a donkey together warns against the "unequal yoking" the clean with the unclean when trying to do the work God has assigned to us. Once again, we are to remain holy, even if doing so seems inconvenient or inefficient to us. As so often happens, it all boils down to a question of whether or not we are willing to take Yahweh's word for something we don't entirely understand. We could say (in our arrogance), "Oh, that's only symbolic," or "Oh, that's just for the Jews." But I can't get past the idea that Yahweh *said to do it*. So to me, it just makes good sense to seriously explore His precepts with an eye to discovering what may be hidden beneath the surface. We should, then, take a good, hard look at GMOs in light of their newfound prevalence in the world and their potential impact on the earth's food supply over the next couple of decades.

First, however, we should define what they are-and what they are not. A genetically modified organism (GMO) is one "whose genetic material has been altered using genetic engineering techniques. Organisms that have been genetically modified include micro-organisms such as bacteria and yeast, insects, plants, fish, and mammals. GMOs are the source of genetically modified foods, and are also widely used in scientific research and to produce goods other than food. The term GMO is very close to the technical legal term, 'living modified organism' defined in the Cartagena Protocol on Biosafety, which regulates international trade in living GMOs (specifically, 'any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology')." That is to say, these living organisms (some of which can be used as food) have been purposely genetically engineered, a process that "involves the mutation, insertion, or deletion of genes. When genes are inserted, they usually come from a different species, which is a form of horizontal gene transfer. In nature this can occur when exogenous DNA penetrates the cell membrane for any reason. To do this artificially may require attaching the genes to a virus or just physically inserting the extra DNA into the nucleus of the intended host."-Wikipedia.

To put things in perspective, this is not remotely the same thing as selective breeding or cross-pollination, techniques that have been around for millennia. These things are done to strengthen (or weaken) certain aspects of a species' natural characteristics. A few examples will suffice. At one time all dogs were rather wolf- or coyote-like. But with selective breeding, today we've got varieties ranging from tiny Chihuahuas and Shih Tzus to Great Danes and Mastiffs. If you didn't know better, you'd swear they were different species altogether. And how about corn? The "maize" that the early European explorers found growing in the new world was a domesticated version of a grass from the genus *zea*, a tiny-eared plant called teosinte. Through selective breeding to take advantage of natural mutations, the fat yellow corn we know today was purposely developed over many generations.

Well, perhaps I shouldn't say "the corn we know *today*." How about "the corn we knew until a few years ago"? Today's corn is more likely than just about any

other plant to have been genetically modified at the *molecular level*. The game these days (one I believe the Torah may have been warning us to avoid) is to alter the actual genetic profile of a plant's or animal's genome. This may involve forcing mutations or adding or deleting genetic material—and not necessarily from something closely related, as when we grow hybrid roses. Sometimes, genetic material from an *entirely different species* is added, like adding crab DNA to corn, or a non-pathogenic strain of *E. coli* bacteria for large-scale laboratory production of an enzyme (chymosin) used in the manufacture of cheese. About 60% of the hard cheese made in the U.S. is made with genetically engineered chymosin today, something the government assures us is "safe." But considering the government's abysmal track record for honesty, or even competence, I have my doubts.

These days, most genes used in genetic manipulation for fun and profit come from bacterial sources known as plasmids. The process is only possible, of course, because Yahweh designed all living things-plants and animals alike-to use the same genetic "alphabet," the DNA molecule: the famous double helix structure discovered by Watson and Crick back in 1953. Taking DNA from one kind of organism and splicing it into the genome of another is, of course, something Moses couldn't have begun to comprehend or communicate, hence the broadbrush approach of Yahweh's precepts about remaining pure, holy, and set-apart. The end product of the of genetic modification process is called a "transgenic organism" and the building blocks used to create it are called "recombinant DNA." These are sometimes referred to as chimeric DNA, because they're often made of material from two or more different species, like the mythical chimera mentioned in Homer's *Illiad*—a fire-breathing creature composed of a lion, a goat, and a snake. (And in case you've forgotten your mythology, sighting the chimera was considered a bad omen-a portent of storms, shipwrecks, and volcanic eruptions. It seems that even the ancient Greeks did what they could to warn us that this maybe isn't the smartest idea man ever came up with.)

If you ask the government, or the people who manufacture and distribute GM food products, they'll insist that GMOs are perfectly safe. There's no doubt that they help big agribusiness companies improve efficiencies and yields—enhancing the bottom line. But what they *say* is less telling that what they *do*: in America, at least, the people pushing GMOs (the poster child for the industry seems to be Monsanto, but there are many others) have so far been successful in blocking any and all attempts to require that the presence of GMOs is indicated on a product's labeling, along with the net contents declaration, ingredients list, and nutritional facts.

In a former life, I was a packaging designer, and I designed quite a few food packages. It seems exceedingly odd to me that if you buy corn flakes, they have to tell you how much sodium, cholesterol, and fat there is, but they don't have to tell you if the ingredients in your breakfast cereal have been genetically modified by splicing gene sequences from some bacteria into them. The "paranoid fringe" aren't even demanding GMOs to be banned outright (in most cases); they're merely asking that food producers to tell the truth about what's been done to what we eat. If they have nothing to hide—if GMOs are really so "safe"—then why have Monsanto and other companies spent over half a billion dollars in lobbying efforts and campaign contributions, all to hide their presence from consumers?

A quick Internet search will turn up literally thousands of sites warning of the dangers—real or perceived—of GMO technology. I'll give you but one example: this is from the website for the Institute for Responsible Technology:

"Genetically modified foods...Are they safe? The American Academy of Environmental Medicine (AAEM) doesn't think so. The Academy reported that 'Several animal studies indicate serious health risks associated with GM food,' including infertility, immune problems, accelerated aging, faulty insulin regulation, and changes in major organs and the gastrointestinal system. The AAEM asked physicians to advise patients to avoid GM foods." (Good luck with that: they're not labeled.)

"Before the FDA decided to allow GMOs into food without labeling, FDA scientists had repeatedly warned that GM foods can create unpredictable, hard-todetect side effects, including allergies, toxins, new diseases, and nutritional problems. They urged long-term safety studies, but were ignored." It makes one wonder who got paid off, and how much they got.

"Since then, findings include: (1) Thousands of sheep, buffalo, and goats in India died after grazing on Bt [*Bacillus thuringiensis*] cotton plants. (2) Mice eating GM corn for the long term had fewer, and smaller, babies. (3) More than half the babies of mother rats fed GM soy died within three weeks, and were smaller. (4) Testicle cells of mice and rats on a GM soy changed significantly. By the third generation, most GM soy-fed hamsters lost the ability to have babies. (5) Rodents fed GM corn and soy showed immune system responses and signs of toxicity. (6) Cooked GM soy contains as much as 7 times the amount of a known soy allergen. Soy allergies skyrocketed by 50% in the UK, soon after GM soy was introduced. (7) The stomach lining of rats fed GM potatoes showed excessive cell growth, a condition that may lead to cancer. (8) Studies showed organ lesions, altered liver and pancreas cells, changed enzyme levels, etc." Considering how focused the world's self-proclaimed elite are on reducing the world's population, could it be that they've seized upon GMOs as one way to make the human race infertile? I may be paranoid, but that's not the craziest idea I've ever had.

"Unlike safety evaluations for drugs, there are no human clinical trials of GM foods. The only published human feeding experiment revealed that the genetic

material inserted into GM soy transfers into bacteria living inside our intestines and continues to function. This means that long after we stop eating GM foods, we may still have their GM proteins produced continuously inside us. This could mean that if the antibiotic gene inserted into most GM crops were to transfer, it could create super diseases, resistant to antibiotics. And if the gene that creates Bt-toxin in GM corn were to transfer, it might turn our intestinal bacteria into living pesticide factories." Should we be alarmed that over 65% of all corn grown in the U.S. is genetically modified to produce the Bt-toxin, or that 80% of our processed foods contain genetically modified ingredients? I am.

How, precisely, do the problems inherent in GMOs tend to manifest themselves? Let's track the cause-and-effect sequence of just one trait that's built into genetically modified corn and soybeans. In order to combat pests in the field, these crops are genetically spliced with Bt-toxin, *Bacillus thuringiensis*, which turns the grain itself into a pesticide. It acts by creating holes or pores in the digestive tracts of insects. America's Environmental Protection Agency (the EPA) goes so far as to label Bt-corn and Bt-cotton as registered pesticides, but they insist that "Bt-toxin will have absolutely no influence on human or mammalian cells."

Really? The IFRT folks report that "Research published in the *Journal of Applied Toxicology* [in February, 2012] proves them wrong. Researchers 'documented that modified Bt toxins [from GM plants] are not inert on human cells, but can exert toxicity.' In high concentrations (generally higher than that produced in average Bt corn), Bt-toxin disrupts the membrane in just 24 hours, causing fluids to leak through the cell walls. The authors specifically note, 'This may be due to pore formation like in insect cells.'" It appears that Bt-toxin may indeed create gastrointestinal havoc—just as it was designed to do.

Bt-toxin is designed to kill insects in the field—ostensibly a good thing if you've got a forty thousand acres under cultivation and you're trying to turn a profit. But is the genetically induced pesticide also a problem for larger animals (or people)? Yes, it is. Butchers have long noticed that the intestinal tracts of the GMO-fed animals they slaughter are compromised in several ways. First, the intestinal walls are thinner and more permeable than in non-GMO-fed livestock. (American sausage makers have had to resort to buying their natural casings from New Zealand, because domestic GMO-corn-fed casings are no longer strong enough.) This also means that the nutrients in the grain are not being properly absorbed into the meat. (Forget the fact that God designed them to eat grass in the field, not corn in some feed lot.) Second, the intestinal microflora—the natural bacteria that are supposed to be breaking down the food in the intestinal tract are totally out of balance. Meat packers have noted that butchered GMO-fed pigs and cattle have a horrible stench and discolored organs, due to a radical shift in intestinal flora, when the animals are fed GM corn or soybeans.

How are GMOs throwing gut bacteria off? Most genetically engineered crops are "herbicide tolerant," so they end up with far greater concentrations of weed killers in the "food" portions of the plants than they ordinarily would. The two most widely used weed killers, Roundup and Liberty, have antibacterial properties: they kill the natural bacteria that normally control the growth of botulism in animals and humans. So disaster is compounded by catastrophe: intestines trying to cope with GMOs (whether of animals or the people who eat them) become porous and thin-walled, less able to absorb whatever nutrients are left in the food. The balance of microflora that's required for digestion (again, either in the animal or the one eating it) ceases to function properly. This, you may have noticed, is one more permutation of the "famine" that Yahshua predicted will plague us in the days leading up to His return.

And remember, pestilence—disease—is predicted alongside famine. So it is significant that physician Gary Gordon notes: "If [Bt-toxin] is causing an increased propensity for our intestines to become permeable or leaky and for foods to be presented to our bloodstream in a premature fashion, the havoc that it will cause will be across the entire spectrum of disease, from premature aging and Alzheimer's to Parkinson's to autism to cancer to asthma." Autism in particular, it must be noted, has a high statistical correlation to gastrointestinal issues—the same issues that are so characteristic of GMO-fed livestock.

Of course, the thing autism is known for—the thing that makes it so debilitating—is the characteristic behaviors its sufferers display. And again, we find a terrifying GMO connection. Researchers using rats as subjects noticed a profound shift in behavior when their subjects' diets were switched from non-GMO to genetically engineered food. Over the course of six or eight weeks, the rats went from being so docile they could be picked up, handled, and treated almost as pets, to being skittish, irritable, unsociable, and antagonistic toward their cage-mates. Farmers reported the same sort of thing with pigs fed GMO corn. They couldn't get along with other pigs; aggression and paranoia became evident; they even bit the ears and tails of the other pigs. Some piglets, upon weaning, seemed to forget where the feed trough was, dying from starvation even though food was available. One may be tempted to chalk these problems up to stress from living in unnatural confined spaces, but the destructive and antisocial behaviors *disappeared* when non-GMO feeds were reintroduced.

Laboratory experiments done to study the specific effects of GMO versus non-GMO foods, using rodents as test subjects, were also revealing. One researcher reported, "The mice fed on GM food seemed less active while in their cages. The differences in activity between the two cages [GMO vs. non-GMO] grew as the experiment progressed." When he moved the mice to weigh them, more differences became apparent: "The mice from the GM cage were noticeably more distressed by the occurrence than the other mice. Many were running round and round the basket, scrabbling desperately in the sawdust, and even frantically jumping up the sides, something I'd never seen before. They were clearly more nervous. . . . For me this was the most disconcerting evidence that GM food is not quite normal." Another researcher reported that rats fed GM soy exhibited anxiety and aggression, while those fed non-GMO soy did not. The GM-fed animals attacked and bit each other—and the worker. Worse, more than 50% of the offspring from the GMO-fed group died within three weeks when compared with a 10% death rate among the group fed natural soy. The GM group also had high rates of infertility.

I find it noteworthy that, as the fastest growing developmental disability, the incidence of autism tracks *perfectly* (if you'll pardon the word choice) with the introduction of GMOs. In 1975, only one person in 5,000 suffered from autism; by 1995, that had risen to one in 500; in 2001, it was one in 250; by 2009, one person in 110 suffered from this debilitating malady. What, then, do the years between now and my hypothetical "target date" of 2033 portend? You do the math.

The stunning correlation between autism and dietary GMOs is something we dare not ignore. And the correlation is just as striking with other issues such as infertility, lung damage, cancer, immune impairment, liver, kidney, heart and spleen dysfunction, SIDS, vitamin deficiencies, premature aging, and insulin regulation problems. I have only scratched the surface here: the truth is as deep as it is ugly. If the trend continues at its present pace, by the fourth decade of the twenty-first century it will be nearly impossible to procure food that isn't tainted with GMOs, and half the world will be dealing with the debilitating effects of autism or some other health plague that is directly attributable to man's constant willingness to tinker with God's perfect design in order to make a quick buck.

I should reiterate at this point that this was all prophesied (albeit subtly): famine and pestilence (the kinds of things GMOs apparently bring to our world) *are* going to be part of life on earth as the Last Days approach, or Christ is a liar. Ergo, there's nothing we can do to stop them. So our proper response to this bad news shouldn't be burning GM crops in the field (unless they belong to you, of course), lynching Monsanto execs, or engaging in political activism designed to replace the old politicians with all new ones. The hour is far too late for any of that. Rather, we should (1) know of a certainty that the time of Christ's return grows near, and comport ourselves accordingly; (2) feed our families as well as we can, growing our own food if possible, or at least avoiding processed foods and GMO-fed meats to the best of our ability. (Corn and soy are particularly

suspect, at least in America, and they're found in 'most *everything*.) And (3) educate our loved ones on how to remain reasonably healthy until our Messiah calls us home at the sound of the last trump.

### The Disappearance of Honeybees

Another harbinger of worldwide famine in these Last Days is the puzzling mass die-offs of honey bees that we've seen in the past decade or so. The strange and largely inexplicable (or at least consensus-resistant) disappearance of honey bee populations is a phenomenon known as Colony Collapse Disorder, or CCD. The primary indicator of CCD is that very few adult honey bees (or none at all) are found in the hive; a live queen is present, but no honey bee corpses. It's as if the workers have simply flown off and failed to return to the hive, leaving no forwarding address. There's usually even honey left in the hive, and immature bees (brood) are often present—just no mature honey bees.

Although CCD is a recent phenomenon, the world has seen spontaneous and sporadic bee colony losses before. There were recorded honey bee disappearances in the 1880s, 1920s, and the 1960s, and in 1995-96, Pennsylvania beekeepers lost 53 percent of their bee colonies without any specific identifiable cause. That being said, the problem has never this persistent or widespread before. If it continues (as it seems likely to do) CCD could have a huge negative effect on the world's ability to feed itself within the next couple of decades. Albert Einstein is said to have remarked that if the honey bee were to disappear altogether, mankind would live for only four more years. It's a theory I'd hate to see tested.

About a third of the plants we eat depend to some degree upon insects mostly honeybees-for pollination. Insect pollination is an important (and sometimes essential) step in the growth of many of the fruits, nuts, seeds, and green vegetables that people like to eat. Wikipedia lists 120 plant families used for food that are, to one extent or another, dependent on pollinating insects. I suppose we could do without macadamia nuts, watermelons, and zucchini (and dozens of other things, including honey) if we had to, although our quality of life would be diminished with each loss. But here's more to this than what goes *directly* into the normal human diet. We (well, some of us) eat animals too, and what *they* eat is also affected by the presence or absence of bees—alfalfa, clover, buckwheat, and soybeans, for example. The twin blessings of the Promised Land, "milk and honey," are related concepts, for even cows depend to some extent on how well honeybees do their jobs. And the problem goes even deeper. Although plants such as root vegetables and salad greens can indeed grow without pollination when started from seeds, they may require insect activity to produce seeds for the *next* generation.

It may come as a surprise to "city-folk" that much of the pollination chores in commercial agriculture are done with the assistance of professional beekeepers, who move their hives from location to location as needed. This has been the case for many decades now. In 1945, managed bee colonies in America numbered about five million. But despite a vast increase in the agricultural output of the nation—with agribusiness doing whatever it can to keep up with the demands of a rapidly expanding world population—our total number of honey bee colonies has shrunk to only about 2.5 million today. This, of course, forces beekeepers to transport their hives over much longer distances than ever before, in the process exposing the insects to a wider range of hazards than they ever would have faced in the wild.

Some areas (notably California) have reported up to a seventy percent decline in the number of bees. How the hives fare over the winter tells the tale. Annual over-winter losses between 2006-2011 averaged about 33 percent each year, with a third of these losses attributed to CCD by beekeepers. (That is, a third of the losses were from unexplained causes, things they couldn't chalk up to known hazards, diseases, or the normal cycle of colony maturity.) The unusually mild winter of 2011-2012 was an exception, when total losses dropped to "only" 22 percent. But everyone agrees that there's far more to CCD than cold winters. Though the bee colonies can recover to some extent in the spring, there has still been an alarming net loss in the world's honey bee populations—one that could contribute to famine in the world's very near future.

Domestic bees aren't alone in their plight. Wild bees and other pollinating insects (which are just as important as domesticated bees in pollinating food crops) have been hit hard as well. In fact, feral honey bee populations in the U.S. have dropped an alarming 90 percent over the last 50 years. Fifteen pollinating insect species have earned unenviable spots on the U.S. endangered species list. And the dominoes continue to fall: the World Conservation Union gloomily predicts that 20,000 species of flowering plants could disappear over the next few decades, mostly resulting from the global declines in wild pollinator populations. So you may want to "stop and smell the roses" now, while there are still roses to smell.

There are any number of theories to explain CCD, from pesticides, to pollution, to poor nutrition, to pests, including viruses and fungi. Some of the more creative doomsday theorists have blamed cell phone radiation or the genetic modification of crops (something that actually deserves a closer look, in light of what we've already discovered about GMOs). I also wonder if the earth's weakening magnetic field (by which bees presumably navigate their way back to the hive) may have something to do with it. Perhaps decreasing genetic variation is a factor. (After all, it exacerbated the Irish potato famine of the 1840s.) The introduction (whether intended or not) of non-native species has reduced the numbers of native pollinators in the U.S. and elsewhere. Does anyone remember the "killer bee" scare of a few decades ago? These "Africanized Honey Bees" displaced native bee populations as they advanced from South America into the north. But the European honey bee (the variety commercial beekeepers raise) is an invasive species as well. It too competes with our native insects for limited resources.

Two potential causes for Colony Collapse Disorder in particular have drawn the attention of researchers. The first is the over-use of certain class of pesticides. Known as neonicotinoids ("neonics" for short), they're chemically related to nicotine. They are said to have "little effect on mammals," an observation in which I find little comfort, for some reason. Neonics act as a nerve poison in insects, and were designed to kill aphids and beetles. But they've also been linked to honey bee deaths, a fact attested to by the USDA. They harm bees, it is suspected, by disrupting the navigational ability which they use to find flowers and make their way back to the hive. Everyone seems to agree that neonics basically scramble the bees' little brains.

The only question left to be answered is, *at what level of exposure* do neonics become a problem for bees? You've got to wonder at the sanity of scientists who readily admit that these neurotoxins are bad (which, let's face it, was the whole idea), but who insist that bees (who are bigger than their intended victims) can surely withstand a little bit of the poison with no ill effects (or at least, they will suffer only "acceptable losses"). That's like giving your children "just a little bit" of arsenic in their orange juice each morning, because some traditional Chinese herbalists used it to fight diseases like acute promyelocytic leukemia, and you're pretty sure "just a little bit" of it won't hurt them. The reckless arrogance of these scientists is stunning.

The EU recently banned neonicotinoids for two years so they could study the link (if it exists) between this class of pesticide and CCD. The proposal met with fierce resistance from chemical and pesticide manufacturers, of course. The moratorium was granted only because of overwhelming popular support—nearly three million Europeans signed petitions begging the government to take action.

Meanwhile, the American Environmental Protection Agency sent (count 'em) *three* representatives to California's San Joaquin Valley (home to 800,000 acres of bee-dependent almond trees) to "show their concern" for their plight. Wow. Unimpressed (since the EPA is carrying on an openly incestuous relationship with pesticide and GMO-producing corporations) a coalition of beekeepers, environmental and consumer groups sued the EPA in April, 2013 for its failure to protect bees from harmful pesticides. Peter Jenkins, of the Center for Food Safety,

has called for the tightening of pesticide regulations in this country, complaining that, "The one factor that EPA actually has control over is the one that they refuse to regulate."

Richard Schiffman reports, "In one of the most widely publicized studies, scientists at Harvard were actually able to duplicate the symptoms of CCD by exposing bees over a 23 week period to a low dose of imidacloprid, a neonic which is produced by the German company Bayer AG. Another report published in PLOS One found 'remarkably high' levels of neonics and other agro-chemical toxins in pollen collected by honeybees, leading, the researchers said, to significant reductions in overall honey bee fitness. Yet another study conducted by Jeffrey Pettis, the head of the US Department of Agriculture's Bee Research Laboratory, concluded that exposure to the neonic imidaclopid (the most popular pesticide in the world) makes bees more susceptible to infection by a variety of common pathogens."

The second potential CCD culprit (at least, one that researchers can blame without running afoul of the PC police and costing them their funding) is a blood-sucking bee parasite known as the Varroa mite. Introduced into American bee populations in the 1980s and '90s (along with tracheal mites), these could prove to be a significant factor in our bees' increasing inability to hold the hives together. Varroa mites latch onto the bees and feed on their fluids, weakening the insects. It has been suggested that one possible solution would be to genetically engineer new varieties of bees that could resist the mites.

Sure. What could possibly go wrong?

And although this wouldn't help to explain CCD in feral bee colonies, there is a widespread practice among commercial beekeepers that seems *guaranteed* to compromise the health of their hives. They've been harvesting the honey from their hives and replacing it (since bees have to eat too) with high-fructose corn syrup—which is sort of the entomological equivalent of feeding your kids Skittles and Mountain Dew for breakfast, lunch, and dinner. Forget the fact that 65% of all corn grown in the U.S. is genetically modified to be insect-lethal. (Remember what Bt-toxin does? It destroys the gut and weakens the immune system.) Highfructose corn syrup lacks the critical ingredients contained in natural honey that would serve to combat the ill effects of environmental toxins like neonicotinoids. Specifically, it is bereft of the enzyme p-coumaric (not surprisingly, found in their own honey), a nutrient crucial to the regulation of the bees' immune systems.

So here's the bottom line: (1) Critically important honey bee populations are decreasing. (2) Agribusiness giants, GMO developers, and pesticide manufacturers are well aware that their practices and products are doubtlessly a big part of the problem, but their profitability depends on doing "business as usual." Covering up their culpability, then, has merely become part of the

"overhead," a tax deductible component of the cost of doing business. (3) Governmental agencies like the EPA, USDA, and FDA, knowing where their funding comes from, are increasingly reluctant to do anything meaningful to deal with the impending disaster. There always seems to be time for another study, another field test, another theory. There are a thousand ways to drag one's feet if the money's there. Real solutions are assailed and ridiculed, and whistleblowers are persecuted (and sometimes *prosecuted*) as traitors.

Let us reprise the definition of Colony Collapse Disorder: a few pages back, I wrote, "The primary indicator of CCD is that very few adult honey bees (or none at all) are found in the hive; a live queen is present, but no honey bee corpses are found. It's as if the workers have simply flown off and failed to return to the hive, leaving no forwarding address. There's usually even honey left in the hive, and immature bees (brood larvae) are often present—just no mature honey bees."

I don't know about you, but to me that description sounds an awful lot like something else the scriptures tell us to expect. Here's my crazy idea of the day: CCD reminds me of what the world will feel like after the rapture of the church. We (like the bees) will leave no corpses behind in the hive (the world)—we will have been "caught up into the clouds" to be with Christ, as it's described in I Thessalonians 5:16-17 and I Corinthians 15:51-52. The "leaders," the "wealth," the infrastructure, the unproductive, and the parasites will all still be there, but those faithful workers who actually made the golden sweet stuff and brought "value" to the hive will have departed, never to return—and no one who's left behind will have a clue as to what happened, how, or why. The "hive" will have collapsed, even if the queen and the larvae don't realize it yet.

And if you don't mind stretching the metaphor to the breaking point, it seems to me that the brood bees, the immature larvae left behind in the hive, could be analogous to Laodicea, the seventh and last church on Yahshua's "mailing list" in Revelation 2 and 3—the original recipients of John's vision. Whereas the Philadelphians (church #6) represent the honey bees who have left the hive (in the rapture: see Revelation 3:10), the "larvae" left behind are like those who will face the terrors of the Tribulation without the benefit of the worker bees. Will they survive? Only if they take Yahshua's advice: "I counsel you to buy from Me gold [immutable purity] refined in the fire [the crucible of the Tribulation], that you may be rich; and white garments [imputed righteousness], that you may be clothed, that the shame of your nakedness may not be revealed; and anoint your eyes with eye salve, that you may see [that is, overcome your spiritual blindness]. As many as I love, I rebuke and chasten. Therefore be zealous and repent." (Revelation 3:18-19) The subsequent record strongly implies that multitudes *will* repent, even though many will pay for their former immaturity and willful blindness with their mortal lives.

But as I said when I began this rant, the Bible *predicts* famine as a harbinger to the Last Days. It *is* coming. And the disappearance of the honey bees could well be a major contributor to the plague of famine that will visit the world before the return of Christ. It remains to be seen just how severe the famine will become in the days before the rapture, but it is guaranteed to take on "Biblical" proportions during the Tribulation—the last seven years of the age.

In John's apocalyptic vision, he saw this scene: "Now I watched when the Lamb [Yahshua] opened one of the seven seals, and I heard one of the four living beings say with a voice like thunder, 'Come!'...When He [Yahshua] opened the third seal, I heard the third living being say, 'Come!' And I looked, and behold, a black horse! And its rider had a pair of scales in his hand. And I heard what seemed to be a voice in the midst of the four living beings, saying, 'A quart of wheat for a denarius, and three quarts of barley for a denarius, and do not harm the oil and wine!'" (Revelation 6:1, 5-6) All sorts of basic foodstuffs are going to be in such short supply, they'll become terribly expensive—due, at least in part, to a shortage of honey bees. But what does it mean not to "harm the oil and the wine"? As it turns out, neither olive trees nor grapevines depend on honeybees for the development of their fruit. Could it be that we've stumbled upon a central cause of the severe and deadly famine of the Tribulation years—the disappearance of the honey bees?

But there is a lot more to nutrition than olive oil and wine. Honey bees have always had a great deal to do with putting food on our tables, but today they are disappearing at an alarming rate—worldwide. If the trend continues at its present pace, by the fourth decade of the twenty-first century, the typical human diet will be inadequate, monochromatic, and horrendously expensive.

Once again, however, I should reiterate that our energies should not be squandered in a vain effort to stave off the demise of these valuable and productive insects, or in trying to circumvent anything else God told us (or merely intimated) would happen as the day approached. Rest assured, Yahweh is not done with the world: He's going to need it for at least another thousand years. If we (those believers who survive the Tribulation or who will inhabit the Millennial kingdom as raptured immortals) need honey bees, God will see to it that bees are present.

#### Agribusiness and Famine

With a world population now topping seven billion souls and continuing to grow at an unprecedented rate, it was inevitable that the growing, processing, and marketing of food for the masses would be taken over by "specialists" who could be far more efficient in getting large quantities of food from where it's grown to where it's eaten than individual farmers, ranchers, and fishermen ever could. As a whole, this industry does a marvelous job of doing what it can to keep the world fed. But there are problems fundamentally inherent in the whole idea as well. These too, I suppose, were inevitable.

I was once on the fringes of the agribusiness world. As a packaging designer, I dealt with food producers on a regular basis: poultry, fish, snack foods, liquid foods like dressings, syrups, and sauces, ramen noodles, even nutritional supplements and bottled water. I not only had to know my own side of the business—design, visual and verbal communication, marketing, legal issues, print technologies, and packaging materials—but I often got quite familiar with my clients' challenges as well. Although they were selling processed foods, the actual nutritional aspects of their products often had to take a back seat to more mundane issues. How could they mechanize processes to keep their labor costs in line? What could they do to enhance the flavor? How could they extend the shelf life? How could they best maintain product consistency (since the labels by law had to list certain nutritional realities, ingredients, cooking instructions, etc.).

Their businesses became (out of necessity) more about chemistry, cost analysis, and logistics, than about the food itself. They didn't *have to* produce (for example) foods with a certain minimum level of riboflavin or protein, or less than "X" amount of sodium or fat. But they *did* have to be able to back up any labeling claims they made with hard laboratory analysis. The only incentive they had to make and market nutritious food was the keen eye of careful shoppers—label readers. Of course, sometimes it was a "given" that the food was horrible for you: ramen noodles, for instance, were *expected* to be high in fat and loaded with salt. As long as it was convenient and tasted good, nobody really cared. Chocolate syrup wasn't really *supposed* to be "good for you." But if you were selling gourmet frozen chicken entrees in health food stores (as one of my clients did) then your "numbers" had better look good to discerning health-conscious consumers. And if you wanted any repeat business, the food had to taste good and be affordable as well.

As I intimated before, today's epiphany concerning "famine" is that it can no longer be strictly defined as "not getting enough to eat." For many of us, it now means "not getting the right nutrients from the foods we *do* eat." Most of us *think* we're eating well, when the fact is that increasingly, we're merely consuming nutritionally bankrupt calories. We may feel full, but our bodies are actually suffering from starvation. It doesn't diminish our waistlines (quite the opposite), but it does affect our physical performance, our mental acuity, our "drive," energy level, cognitive awareness, and the ability of our bodies to repair themselves. Ironically, the more empty calories we eat, the less we are able to perceive our own predicament. But the starvation of the world (in this sense) is a process that has been gaining steam for generations—it has proceeded right under our noses, with glacial deliberation. The contrast only shows up when you begin studying the statistical outliers—the increasing incidence of autism, Alzheimer's disease, obesity, diabetes, and ADHD, for example.

*Beyond Health News* reports that, "Today, the conventional produce you buy at the supermarket is vastly inferior to what was available only fifty years ago. Compared to fifty years ago, you have to eat twice as many vegetables to get the same amount of calcium. You have to eat four carrots to get you same magnesium, and up to twenty carrots to get the same amount of zinc, that used to be in just one carrot. Today, food is harvested before it is ripe so that it can be shipped, but this reduces the nutritional content by as much as 80 percent. 'Fresh' produce is days to weeks old before it gets to the store.

"Nutrients are lost rapidly after the produce is harvested. For example, spinach loses 60 percent of its folic acid in three days. Vegetables such as asparagus, broccoli and green beans lose 50 percent of their vitamin C long before they reach the produce counter. When you cook these vegetables, it results in even more losses, including another 25 percent of the vitamin C, 70 percent of vitamin B1 and 50 percent of B2. Eating a "balanced diet" is not as easy as it sounds! The leading cause of disease in America is malnutrition—virtually every American suffers from malnutrition to one degree or another...."

*Beyond Health*, it should be noted, is in the business of selling nutritional supplements. But that doesn't negate the fact that the vast majority of Americans—arguably the best-fed people on earth—are deficient in dietary zinc, Vitamin B6, and magnesium. We are also short on vitamins A, B1, B2, B12, C, and D, calcium, iron, enzymes and essential fatty acids. It makes you wonder what dietary essentials they're short of in Papua New Guinea or Somalia.

"No wonder more than three-out-of-four Americans have a diagnosable chronic disease, and almost all of the remainder are in the early stages of disease. We are a sick population and getting sicker every year. The typical factoryproduced, low-quality foods we get at supermarkets and restaurants are tragically far from the kind of food that can supply our cells with all the nutrients they need to provide us with good health. Unfortunately, these realities are all but ignored by modern medicine because our physicians have little or no training in nutrition, and their focus is on disease [that is, dealing with symptoms], not prevention. It has been estimated that our ancestors consumed three-to-four times more nutrients than we get today. Americans spend 90 cents of every [food] dollar on processed foods, which are lacking in nutrition. Yet the decline in the nutrient quality of our food is only half the reason why supplementation is needed. The other reason is that changes in our environment and lifestyle make our need for nutrients higher than ever."

Many of these "environmental toxins" are a bio-cultural trade off. In order to prevent disease-causing bacteria from proliferating in our public water supplies, city water sources are treated with chlorine—which (taste aside) does its job reasonably well. But chlorine also creates an "oxidizing" environmentintroducing so-called "free radicals" that age us more quickly and compromise our DNA and immune systems. Ozone in the air (O<sub>3</sub>, a byproduct of certain chemical reactions endemic to the modern world) also increases the amount of oxidants in our environment. But ozone, you'll recall, is a necessary—even crucial-component of the upper atmosphere, shielding our planet from the harmful effects of ultraviolet rays from the sun. Other oxidizing hazards in our modern world are the additives found in processed foods (put there to enhance visual appeal, flavor, or shelf life), and prescription drugs—especially cholesterollowering drugs (which deplete nutrients such as coenzyme Q10, vitamins A, B12, D, and E, and minerals such as calcium, magnesium, and zinc), and good oldfashioned stress-which causes our bodies to secrete chemicals that further deplete our nutrient stores. It's the proverbial "vicious cycle." The bottom line is that our need for dietary antioxidants has tripled since 1970, while the typical antioxidant level in the food we eat has been cut in half. (In case you were wondering, berries, tomatoes, garlic, broccoli, green tea, kale, and spinach are all foods rich in antioxidants, though not as "rich" as they used to be.)

It would be easy enough to wag the finger of blame for all of this at big agribusiness. But let's be honest with ourselves: they've only supplied what we the consuming public—demanded. For the past half-century, we have been placing a premium on convenience, flavor, and price. It is we—the consumers who have created an atmosphere in which agribusiness feels it must ruthlessly compete with all rivals, real or imagined, innovate for show (rather than substance), and stack the deck through lobbying and bribes to persuade politicians and regulators to "see things their way."

Back in 1999, Novartis published this candid assessment—and things have only gotten more intense in the intervening years: "The agribusiness industry is in a state of upheaval and rapid change. Low farm commodity prices and depressed farm income have impacted sales. Margins have eroded, putting pressure on financial results and the distribution channels. Restructuring in the agribusiness industry has created a more aggressive competitive environment. New technologies, including genetically modified crops and precision agriculture, are challenging traditional farming practices. Moreover, farmers and growers are increasingly influenced by other players in the food chain, from food and feed processors and food companies right down to supermarkets and consumers." Simply stated, the competition is fierce, and any advantage, real or imagined, safe or dangerous, is grasped at with desperation. Quarterly earnings reports, not genuine long-term consumer benefits, drive the policies of today's agribusinesses.

I can't help but pause and compare this stressful, frenetic, desperate grasping for profits with the almost lackadaisical, laid-back, low-maintenance approach mandated in Yahweh's Instructions. He says, "Don't sweat the small stuff; don't pick every last apple or olive or grape; if you discover you've left a sheaf of grain out there in the field, don't bother going back out to pick it up-leave it for the poor. Don't reap the edges of your field: those are reserved for the poor as well. Give ten percent of what your field or orchard produces to the Levites, who are in turn commanded to use it to make sure nobody in the whole country goes hungry. And every seventh year, don't even plow and plant your field, or pick the fruit off your trees. I've always provided for you: follow My Instructions, and you'll always have plenty to eat." It's not that agribusiness has no business existing. They do. But if their trust is placed in something other than God—whether in questionable science, cheating politicians, or short-sighted business practices then they've missed the point. Let's face it: "food" is living things, harvested to feed other living things. If you're in the food business, it only makes sense to follow the advice-the "business plan"-of the Inventor of life itself.

We've already discussed at length one way agribusiness has compromised itself—sacrificed the integrity (and yes, safety) of conventional farming practices in hopes of maximizing short term profits by using "fringe science" to create transgenic crops. These genetically modified organisms, or GMOs, forsake the proven (but slower) techniques of hybridization and cross pollination to create entirely new genetic entities. The example we concentrated upon, if you'll recall, blends the genetic code of bacteria with that of corn, creating "Bt-toxin" corn, which is *in itself* a pesticide.

The animal husbandry side of things has also begun to suffer under the desperate quest of today's agribusiness for "efficiency at all costs." Most of us have heard horror stories of how cattle, chickens, or pigs are now being "raised" on feedlots instead of farms. The industry term is CAFO, which stands for "Concentrated Animal Feedlot Operation." Basically, these are industrial scale animal factories that have come to dominate the modern commercial livestock business, especially in the U.S. The animals are forced to live in tightly confined spaces (since space is expensive, and free movement slows down the fattening process). They're fed huge amounts of unnatural feed—mostly GMO corn and soy, not hay. (Does feeding a feedlot steer over five pounds of corn for every pound of meat produced strike anybody else as a bit wasteful?) And they're given reckless dosages of drugs—hormones and antibiotics—partially to keep them from dying due to the filthy, feces-infested environments in which they're forced to live, and partially to cause water retention, so they can reach their "killing weights" that much faster.

CAFO facilities are part of the new model of vertically integrated agribusiness operations, in which most or all of the phases of the animal's life are owned by only one giant company—the breeding, feeding, butchering, and meat-packing are all done by the same firm: cradle to carton control, so to speak. Of course, the byproduct side of the business is run the same way: dairy farms and egg ranches are run as a numbers game: this many animals, this much feed, this much time, this much space, this much product, resulting in this bottom line. When I was a boy, my grandfather ran a nice little dairy farm in central Oregon. He made a decent living with forty or fifty cows and 80 acres of pasture. He would not have recognized a CAFO, the smallest of which would have had 700 dairy cows. And my old packaging client with his free-range chickens and turkeys? The 82,000 laying hens (minimum) in a CAFO would have dwarfed his operation—and given him nightmares.

Call me old fashioned, but it seems to me than God designed it so that animals would eat *and poop* near where their feed is grown. That way, the nitrogen in the manure can easily find its way back into the soil in which the grains and grasses are grown. Agribusiness, while presumably meaning well, has separated the two disciplines (farming and ranching) in the name of efficiency. But *is it* more efficient? Our ecology is more like chess then checkers: you need to be thinking four or five moves ahead. (Or, if you're like me and don't like games, simply rely on Yahweh, who's thinking a *thousand* moves ahead.)

Once agribusiness has taken the animals (and their poo) off the farms and forsaken the Sabbath rule, a disastrous chain of events ensues. (1) The growing of crops begins to leach nutrients out of the topsoil faster than they can be replaced. (2) The soil doesn't have enough time to recover from the *mechanical* damage caused by repeated plowing, leaving it vulnerable to wind and water erosion. (3) Uninterrupted cultivation promotes uninterrupted insect activity. (4) Feedlot animal wastes accumulate so far away from where they might be of use in fertilizing the soil that plants are grown in, it's deemed "inefficient" to transport and distribute these organic fertilizers. So much of it ends up being dumped into rivers and streams. (5) Fields are fertilized instead with inorganic chemical compounds-cheaper, and (according to the sales pitch) richer in some nutrients than organic (manure-based) fertilizer. (What you don't know can hurt you.) (6) Pesticides are used in prodigious quantities to kill crop-eating insects (whose lifecycles would have been interrupted if farmers simply observed the Sabbatical year). (7) GMOs are developed to make the crops themselves behave as pesticides. (8) Through agribusiness' incompetence and naivety, the honey bees who are relied upon to pollinate so many of the crops are disoriented or killed by the pesticides and GMOs that have been purposely deployed against other insects. (9) The use of pesticides, herbicides, and GMOs on food crops eventually begins to adversely affect some of the people who eat foods treated with these things,

causing the incidence of formerly rare maladies such as autism, diabetes, and Alzheimer's disease to skyrocket. (10) Pesticide and herbicide residues and chemical fertilizers are dissolved in rain water and make their way into ground water, streams, rivers, and eventually, lakes, seas and oceans. (11) "Dead zones" form offshore from the mouths of the rivers that carry these chemicals (particularly nitrogen and phosphorus). Dissolved oxygen disappears, and fish and other marine life can no longer survive there. But this process, called eutrophication, can lead to rapid increases in the density of algae and phytoplankton, a phenomenon known as an algal bloom.

So as strange as it may sound, agribusiness practices on land contribute to world famine by killing fish offshore. *No problem*, you may be saying. *We'll just get farm-raised fish*. But Dr. Josh Axe writes, "There is a vast different between wild caught fish and farmed fish. Fish farms produce supermarket protein with high concentrations of antibiotics, pesticides and lower levels of healthy nutrients. Research has found that farmed fish has less usable omega-3 fatty acids than wild-caught fish and a 20% lower protein content. A USDA review confirmed the findings. Farmed fish are fattier and have a high concentration of omega-6 fatty acids. Imbalances in the levels of omega-3 and omega-6 fatty acids create inflammation in the body. Farm-raised fish are given antibiotics to stave off disease that results from crowded conditions and are also treated with pesticides to combat sea lice. Sea lice from fish farms kill up to 95% of migrating juvenile wild salmon. The pesticides that have been banned for decades have concentrated in the fat of much marine life."

He goes on to list a few of them: "Polychlorinated biphenyls (PCBs) exist in farm-raised salmon at 16 times the rate of wild salmon.... Dibutyltin is a chemical used in PVC plastics. Dibutyltin can interfere with normal immune responses and inflammation control in both animals and humans. A 2008 study found that dibutyltin may be contributing to the rise of allergies, asthma, obesity and other metabolic and immune disorders in humans. Scientists have found that dibutyltin in farm-raised mussels is more than 6 times higher than that of wild mussels.... Polybrominated diphenyl ether (PBDE), a chemical used as a flame retardant, [is found] in high levels in farm-raised fish. PBDEs are endocrine disruptors that are thought to contribute to cancer.... Dioxin levels in farm-raised salmon are 11 times higher than those in wild salmon. Dioxins are one of the 'dirty dozen,' says the World Health Organization (WHO) because they are highly toxic and are stored for a long time in the body: their half life in fat cells is 7 to 11 years. Dioxins impair the endocrine, immune, nervous and reproductive systems and are carcinogens.... Wild salmon get their color naturally by feeding on krill. Canthaxanthin is a synthetic pigment that is used to add a pink color to farmraised salmon. Canthaxanthin is a compound found in sunless tanning pills.

Studies have found that canthaxanthin can affect pigments in the retina of the eye, leading to a ban of its use in the UK—but not the US."

But fish farms are touted as an answer to greedy overfishing practices, aren't they? While it's true that they tend to make the seafood supply more predictable, we need to remember that fish have to eat too. And that food has to come from somewhere. Dr. Axe explains: "Fish farms don't really combat overfishing: they contribute to it. Salmon, for instance, are carnivores. It takes about 2½ to 4 pounds of other fish to create the salmon chow needed to produce 1 pound of farm-raised salmon. The overfishing of wild sardines, anchovies, mackerel, herring and other fish upset natural ecosystems. 'We are not taking strain off wild fisheries,' says agricultural economist Rosamond L. Naylor. 'We are adding to it. This cannot be sustained forever.'"

And then there's the little matter of the genetic modification of farm raised salmon—"frankenfish," as they're known. These are the first genetically engineered animals specifically "designed" for human consumption. The genetic tinkering is intended to increase the growth rate—perhaps by double. *Digital Journal* (May 7, 2013) explains how: "The AquAdvantage Salmon founder population was generated in 1989 by micro-injecting a recombinant deoxyribonucleic acid (rDNA) construct (opAFP-GHc2), composed of a promoter from an ocean pout antifreeze protein (opAFP) gene and a protein-coding sequence from a Chinook salmon growth hormone (GHc2) gene into the fertilized eggs of wild Atlantic salmon. Subsequent selection and breeding led to the establishment of the AquAdvantage Salmon line, which has been reproduced for eight generations."

As I write these words, the FDA is poised to give final approval to the marketing in the U.S. of these GMO farm raised salmon for human consumption. They claim, "The AquAdvantage Salmon will not jeopardize the continued existence of United States populations of threatened or endangered Atlantic salmon, or result in the destruction or adverse modification of their critical habitat, when produced and reared under the conditions described... FDA has carefully considered the potential environmental impacts of the proposed action and at this time has made a preliminary determination that this action would not have a significant effect on the quality of the human environment in the United States."

Indeed, it appears that every possible precaution is being taken to ensure that the GMO fish are never released into the wild—something that everyone agrees could potentially cause an unprecedented ecological disaster by making it impossible for wild varieties to compete for resources with the fast-growing "frankenfish." So only inland fish farm sites—with no direct links to the open ocean—are to be used. That makes sense, because in conventional fish farms (areas within open waters confined by netting), *millions* of salmon have escaped into the wild through breaches in the barrier nets. Also, the GMO fish are supposed to be sterile—something designed to preclude inbreeding with wild species should any GMO individuals escape into the open ocean.

But the United States is not the only country wrestling with the GMO issue, and others may not be quite as cautious about opening Pandora's Bait Box. The *Digital Journal* article goes on to state, "Atlantic salmon is not the only fish species considered for commercial production using genetic engineering. A report from FAO published in 2003 indicates that since 1982 research is underway in various countries on genetic modification for commercial production of about 20 fish species including Coho and Chinook salmon, rainbow trout, tilapia, common carp, channel catfish, African catfish, and seabream, among others. China is among the leading countries actively working on production of GM fish and other farm animals destined for human consumption. According to *Nature*, AquaBounty's chief executive Ronald Stotish says that in the event the FDA does not give the go ahead to market the AquAdvantage salmon, 'I think we will end up eating genetically modified animals of a variety of species, but they'll come from other countries.'"

It is not my place (nor my area of expertise) to declare GMO fish to be either safe or unsafe. But as a Bible researcher, a few scriptural hints keep tugging on my sleeve, trying to get my attention. So let us connect some dots. First, of course, there's the admonition against cross-breeding and "mixing kinds" in the Torah that I mentioned above when discussing GMO crops. To reprise, "You shall not let your livestock breed with another kind. You shall not sow your field with mixed seed. Nor shall a garment of mixed linen and wool come upon you." (Leviticus 19:19) And, "You shall not sow your vineyard with different kinds of seed, lest the yield of the seed which you have sown and the fruit of your vineyard be defiled. You shall not plow with an ox and a donkey together. You shall not wear a garment of different sorts, such as wool and linen mixed together." (Deuteronomy 22:9-11) How much of that is symbolic, and how much is practical, remains to be seen, but it never pays to ignore God's word.

Then, there's the admittedly cryptic notice about what happened to the human gene pool prior to the flood of Noah: "The Nephilim were on the earth in those days, and also afterward, when the sons of God came in to the daughters of man and they bore children to them. These were the mighty men who were of old, the men of renown. Yahweh saw that the wickedness of man was great in the earth, and that every intention of the thoughts of his heart was only evil continually. And Yahweh was sorry that he had made man on the earth, and it grieved him to his heart." (Genesis 6:4-6) Whatever was meant by the "sons of God" and the "daughters of man" (and the theories are as numerous as the stars in the sky), it is reasonably clear that some sort of genetic disaster had happened, producing a race of men whose wickedness was matched

only by their physical prowess. The subsequent record indicates that the purpose for sending the flood was to wipe out every human—descendants of Adam and Eve equipped with the *neshamah*, the capacity for spiritual indwelling—with the exception of Noah and his immediate family. This establishes the precedent that Yahweh is perfectly willing to wipe out entire ecosystems if they have become hopelessly corrupt, starting over with a remnant of the "pure strain."

In the Olivet Discourse, Yahshua compares the conditions of the Last Days to those immediately preceding the flood: it will be "As in the days of Noah." And we have seen how He intends to rid the world of man's evil prior to the establishment of His Millennial kingdom on earth, via the "Great Unpleasantness"—the Tribulation. But will men be the only casualties of their folly and rebellion? Apparently not. In Noah's day, this is what happened: **"So Yahweh said, 'I will blot out man whom I have created from the face of the land, man and animals and creeping things and birds of the heavens, for I am sorry that I have made them.'" (Genesis 6:7) Not only were men to be punished for their wickedness, but there was going to be "collateral damage" on a massive scale—land animals and birds.** 

Now consider this. During the Tribulation, man won't be the only species to become "endangered." Whatever happens to us will also happen to many of the innocent creatures God entrusted to our care in the Garden of Eden (see Genesis 1:28). So first we read, "Then the second angel sounded: And something like a great mountain burning with fire was thrown into the sea, and a third of the sea became blood. And a third of the living creatures in the sea died." (Revelation 8:8-9) This, if you'll recall the timeline that emerged as we laid out all of the Tribulation's "puzzle pieces," will occur before the midpoint of the Tribulation. But a bit later, *this* will happen: "Then the second angel poured out his bowl on the sea, and it became blood as of a dead man; and every living creature in the sea died." (Revelation 16:3) In each marine "die-off," the cause given is that the water "became like a dead man's blood," that is, utterly polluted, bereft of life giving oxygen. This reminds me of the "dead zones" in the seas today, where run-off pesticides and herbicides have created oxygen-starved pockets of water in which no marine animals can live, but in which anaerobic algal blooms can thrive. These "red tides" look for all the world like blood in the water. Coincidence?

For the moment, forget about *how* this could happen. Ponder the *why* of it. Why would Yahweh allow (or *cause*—we're not told which) the death of "every living creature in the sea" if His purpose was "merely" to deal with rebellious humans? Could it be a parallel to the flood of Noah? Might it reveal why all of *neshamah*-equipped humanity was wiped out during the great flood? That is, could it have something to do with genetic monstrosities running (okay, *swimming*) amok—and breeding—in the world's oceans? I have no direct knowledge that viable (i.e., fertile) "frankenfish" have escaped into the wild, but I do know for certain that if such a thing were to happen, (1) no one would admit to it, not in the U.S., and certainly not abroad; (2) there would be no way to undo the damage—to "close Pandora's Box"; (3) the GM fish would breed and mature twice as fast as the competing species (just as they were designed to do), devouring twice as much food in the process, tending to drive the competing wild fish species toward extinction. Considering the fact that several companies in several countries have been working on creating GM fish for almost twenty years now. It strains credulity to imagine that none of their "experiments" have been released (whether accidentally or on purpose) into the oceans in all that time.

In the end, it's just one more possible indicator that there is (or could be) a paradigm shift of "biblical proportions" on our near horizon. The whole agribusiness model, from fish farms (genetically modified or otherwise) Concentrated Animal Feedlot Operations (CAFOs), soil-depleting farming methods, GMOs, and near-hysterical dependence on inorganic fertilizers, pesticides, and herbicides, is pushing the world's ability to feed itself to the breaking point. Reckless scientists who worry only about "can we do it" rather than "should we do it" are playing Russian roulette with the future of the human race—but the trigger is being pulled by the business moguls who fund their research, thinking only of profits and monopolies, not of the long term welfare of their fellow man.

If the trend continues at its present pace, by the fourth decade of the twentyfirst century, the world will find itself at an event horizon of catastrophic proportions. The tipping point of diminishing returns will have been reached in which so much "artificial assistance" is required to feed the world, it will have become an impossible task. As Yahshua revealed, famine looms in our future. Why? Because, as Solomon said, **"There is a way that seems right to a man, but its end is the way of death."** (Proverbs 16:25)

# Appendix 5 Secular Chronology Confirmation

How current trends corroborate the Bible's revealed timeline

# WATER, AIR, AND LAND

Seven billion souls *can* make an impression on a planet like ours, as unlikely as it sounds considering our infinitesimal insignificance. If we don't pay attention to the consequences of our actions, our rivers can become slow-flowing sewers like the Ganges; our cities can become decaying war zones like Beirut or Detroit; our forests can disappear faster than Brazil's; our skies can become the thick brown haze of a Beijing afternoon.

That's not to say (as today's secular humanists would have you to believe) that all of the earth's environmental woes are "man-caused disasters"—and that if only there were a lot fewer of us (preferably of the same political mindset as theirs) then all would be well. Anyone with a firm grasp on history can spot the fallacy in that opinion from a mile away. There have been "ecological disasters" here since God put the first simple life-forms in place. The anaerobic bacteria that inhabited the primeval oceans might have considered the oxygen that their fellow algae and lichens were pumping into the atmosphere to be an "environmental catastrophe" of the first order, but in reality, it was merely the next step in Yahweh's well-ordered plan to prepare this planet for the higher orders of the fifth and sixth "days" of creation—including us. The asteroid that caused the demise of the dinosaurs sixty-five million years ago did not catch Yahweh flatfooted. Nothing happens on the earth (or anywhere else, for that matter) that takes God by surprise. He planned—or at least planned *for*—everything that has (or will) come to pass.

Christ's Olivet Discourse made it clear that our planet's *next* great paradigm shift would come about not through a single catastrophic upheaval (*a la* Noah's flood), but rather would be characterized and heralded by a confluence of many smaller (albeit serious) stressers upon the earth and its inhabitants—false Messiahs, widespread deception, wars and rumors of war, famines, diseases, earthquakes (and the Greek word used would include oceanic events like hurricanes and tsunamis), hatred, betrayal, lawlessness, and a general forsaking of brotherly love. As you can see, the signs of the Last Days fall roughly into two camps: the sins of mankind, and a corresponding decrease in the earth's "hospitality" toward our race—a measurable decline in its suitability as a home for mortal man. I'd like to reserve the earth's "structural" issues (earthquakes, pole shifts, and hazards from outer space, etc.) for a later chapter, and concentrate here on the indicators found in man's biosphere that are conspiring to inform us that perhaps mankind has just about worn out his welcome on this planet.

I can't help but be reminded of Yahweh's promises of either blessing or cursing upon Israel (listed in Leviticus 26 and Deuteronomy 28). If they followed God's Instructions, their lives in the Land would be blessed—they'd have good weather, bountiful crops, safety from potential enemies (both human and animal), and so forth. But if they refused to heed Yahweh's word, they'd be cursed with drought, famine, defeat in battle, and eventually eviction from the Land itself. These blessings and cursings weren't necessarily proactive rewards or punishments meted out by God in response to how well or how poorly the Israelites "toed His line." Rather, for the most part, they were the *natural* result of following the "good advice" of the God who had designed and built the Land and the whole world—to be a habitation for man.

Part of that, of course, is maintaining a close, personal relationship with Yahweh—something that was described as if in pantomime in the "Levitical" or "priestly" parts of the Torah (the majority of the text, by the way). But the "practical" parts, like the dietary laws, the Sabbath year and Jubilee, and all those precepts concerning property, justice, and relationships, often carry with them their own rewards—or punishments. Should we be surprised, then, to find that our abuse of our world, and our antagonism toward its Architect, would manifest themselves sooner or later in the planet's reluctance to keep providing for our every need without complaint?

### Expanding Deserts

The Promised Land the Israelites entered after their four-century sojourn in Egypt was described as "a land of milk and honey." That is, it was well watered, lush, and green, supporting pastures, orchards, vineyards, and fertile fields. The key, of course, was constant and timely rain blowing in off the Mediterranean Sea. Moses described it thus: "For the land which you go to possess is not like the land of Egypt from which you have come, where you sowed your seed and watered it by foot, as a vegetable garden; but the land which you cross over to possess is a land of hills and valleys, which drinks water from the rain of heaven, a land for which Yahweh your God cares; the eyes of Yahweh your God are always on it, from the beginning of the year to the very end of the year." (Deuteronomy 11:10-12) In Egypt, they were "self-sufficient" in their slavery because they *had to be*: their gardens had to be laboriously irrigated if they didn't want to starve to death. But in Canaan, God provided the "early and latter rain" as a direct blessing. You couldn't irrigate the terrain of

eretz Israel using Egyptian methods if you wanted to. In the Promised Land, God's timely rain is essential.

But anyone who has visited Israel lately (say, in the past two thousand years) knows that it can no longer be described in such verdant terms. God forsook this land (temporarily) when He removed the rebellious Israelites from it—and not for the first time—in the wake of their rejection and crucifixion of the Messiah. It wasn't just Emperor Hadrian's salting of Judea's once fertile fields in the wake of their unsuccessful second-century rebellion that caused the desertification of the Levant, either. The very weather patterns changed, leaving the Land barren and inhospitable, alternating between desert wilderness and fetid swamp. It was a land nobody really wanted—for reasons other than religious fervor, anyway—for about seventeen hundred years: that is, until European and Russian Jews began showing renewed interest in the place in the mid-nineteenth century.

Now—well over half a century since the Jewish national state was reestablished in Israel—the Land is once again beginning to "blossom like a rose" (see Isaiah 35:1), but only through the herculean efforts of the Israeli people. Yahweh's future blessing (a prophetic *fait accompli*, by the way) will be required to restore the Land to its former status as a "land of milk and honey." But there is evidence that even now, the fields, orchards, and forests that the Israelis have planted have actually taken their first tenuous steps toward shifting the weather patterns back from dry desolation to "rain in its season." The *Jerusalem Post* reported that "Over four million trees have been planted [in the Yatir Forest], mostly coniferous trees—Aleppo Pine and Cypress, but also many broad leafed trees such as Atlantic Terebinth, Tamarisk, Jujube, Carob, Olive, fig, Eucalyptus and Acacia, as well as vineyards and various shrubs. Yatir Forest has changed the arid landscape of the northern Negev, despite the pessimism of many experts. It has proven to be a prime ecological instrument, halting the desertification on the heights northeast of Beersheba."

The sad fact, however, is that "desertification"—the encroaching of barren desert into formerly fertile areas—is the norm in our world. The question is: *why*? It would be a gross oversimplification to lay the blame for the process solely on increasing numbers of humans (as the textbooks imply), for it has been going on for quite some time—since long before the world's population began "exploding" a few hundred years ago. Expanding deserts played a role in the demise of such empires as Carthage, Greece, and Rome. Much of the vast (and still-growing) Sahara desert was once well watered savannah grasslands, populated and prosperous.

As the theory goes, a growing population means deforestation for lumber and firewood, and expanding croplands leading to overcultivation, leading in turn to soil depletion and "dust-bowl" conditions. Keeping domesticated animals can lead

to overgrazing, if they're kept in place (as opposed to nomadic herding, in which the flocks follow the region's rainfall). All of this contributes to bare soils, resulting in encroaching deserts. It's all true (as far as it goes), but there's more to it. While deforestation can lead to lower rainfall totals and higher temperatures, logged-over regions don't automatically turn into deserts. And too many animals? Vast herds of bison once roamed the American prairies, causing no appreciable ecological damage. The same is true of the immeasurable herds of grazing animals that populated sub-Saharan Africa for millennia on end. The bison may be gone and the gazelles endangered, but only because of man's arrogance and greed, not the conversion of their grazing lands into desert wastes. So a burgeoning human population, while certainly not helping the situation, is not the only root cause of desert expansion in the world.

Today, about 40% of the world's land area could be characterized as "dry lands"—either deserts or regions vulnerable to some degree to desertification. A similar percentage of the world's poorest people live there—in places where the fertility of the land is an "iffy" proposition at best. A billion people today live in areas where deserts are actively encroaching upon their ancestral homes, prompting mass migrations. One example: scholar Wang Tao reports that over the past fifty years or so, some 24,000 villages in northern and western China have been abandoned, at least partially because of desert expansion.

Lester R. Brown writes, "A 2006 U.N. conference on desertification in Tunisia projected that by 2020 up to 60 million people could migrate from sub-Saharan Africa to North Africa and Europe." He goes on to say, "In Iran, villages abandoned because of spreading deserts or a lack of water [something we'll discuss in a moment] number in the thousands. In Brazil, some 250,000 square miles of land are affected by desertification, much of it concentrated in the country's northeast. In Mexico, many of the migrants who leave rural communities in arid and semiarid regions of the country each year are doing so because of desertification. Some of these environmental refugees end up in Mexican cities, others cross the northern border into the United States. U.S. analysts estimate that Mexico is forced to abandon 400 square miles of farmland to desertification each year."

It's a global problem, one that's accelerating. The U.N. reports that "Arable land loss [today is] estimated at 30 to 35 times the historical rate.... Due to drought and desertification each year 12 million hectares [that's almost 30 million acres—over 46,000 square miles] are lost (23 hectares/minute!), where 20 million tons of grain could have been grown." Their proposed solutions (admittedly easier said than done) include: "Reforestation and tree regeneration; Water management—saving, reuse of treated water, rainwater harvesting, desalination, or direct use of seawater for salt-loving plants; Fixating the soil through the use of sand fences, shelter belts, woodlots and windbreaks; Enrichment and hyperfertilizing of soil through planting; Farmer Managed Natural Regeneration (FMNR), enabling native sprouting tree growth through selective pruning of shrub shoots. The residue from pruned tress can be used to provide mulching for fields thus increasing soil water retention and reducing evaporation."

That's all good advice, as far as I can tell, though I can't imagine what kind of brute force it would take to implement it on any kind of globally significant basis. As usual, humanity has recognized the problem and met it head on—while totally ignoring God's input on the matter. Let's face it: the *real* root cause of expanding deserts in the world is not too many people, or overgrazing, or deforestation, or overcultivation of farmland. It's far more basic and fundamental: there's *not enough rainfall*. I know that sounds simplistic, but it's true. The global elite can't just come out and admit this, however, because rain is God's department, and they don't (or won't) believe that He exists, nor can they do anything significant to make the rain fall where and when it's needed. (Cloud seeding, beside being hitor-miss and woefully inadequate for the task, is a classic case of "robbing Peter to pay Paul.")

Bearing in mind that the Torah, God's Instructions to Israel, apply in principle to everyone, Jew and gentile alike, we need to review His solemn promise: "if you diligently obey the voice of Yahweh your God, to observe carefully all His commandments... Yahweh will open to you His good treasure, the heavens, to give the rain to your land in its season, and to bless all the work of your hand." (Deuteronomy 28:1, 12) That's right, folks: if you want adequate rainfall, all you have to do is carefully observe all of Yahweh's commandments. What are they? Read and heed the Torah, or, if further insight is need, might I humbly suggest consulting my thousand-page analysis of the Torah, entitled *The Owner's Manual*. In the meantime, boiled down to their essentials, "all Yahweh's commandments" consist of honoring Him and loving other people—something the vast majority of humanity refuses to do, hence their little problem with the world's deserts threatening to swallow them in their sleep.

Put another way, the question is: was the drying up of the earth inevitable? Is it the unavoidable result of having "too many" people on the planet? Are the secular humanist scientists justified in proposing that if ninety-plus percent of the world's population can be "eliminated," then the earth will automatically heal itself? Or is it merely the direct and predictable result of mankind's stubborn refusal to heed Yahweh? I am reminded that even during the Millennium, drought will follow rebellion as night follows day: "And it shall come to pass that everyone who is left of all the nations which came against Jerusalem shall go up from year to year to worship the King, Yahweh of hosts, and to keep the Feast of Tabernacles. And it shall be that whichever of the families of the earth do not come up to Jerusalem to worship the King, Yahweh of hosts, on them there will be no rain." (Zechariah 14:16-17) That is,

when Yahweh reigns personally upon the earth, there will be a direct cause-andeffect correlation between rebellion and drought. We would be foolish to suppose that God isn't *already* running His world according to this principle.

Is it really so hard to comprehend? The world is turning into a big round desert because we don't honor the God who made it. If the trend continues at the present pace, by the fourth decade of the twenty-first century, a further *million square miles* of farmland—roughly a fifth of all the land under irrigation today—will be lost to the encroaching desert.

## Deforestation

It is said that prostitution is the "world's oldest profession." Whether or not that's true, cutting down trees has to be a close runner-up. Since time immemorial, men have used wood from downed trees to fuel their fires, make their tools and weapons, and build their shelters. And the domestication of grain crops prompted us to cut down indigenous forests to make room of open fields in which to grow them, or to graze our livestock—a process that is proceeding apace to this very day. A song from my youth kind of said it: "They took all the trees and put 'em in a tree museum / And they charged all the people a dollar and a half just to see 'em. / Don't it always seem to go, that you don't know what you've got till it's gone. / They paved paradise and put up a parking lot."—Joni Mitchell: *Big Yellow Taxi*.

In a way, deforestation is the flip side of desertification. The earth's land surface was once about sixty percent wooded. (That is, out of a land surface of 57 million square miles, approximately 34 million square miles were once woodlands.) Today that figure is down to about half of that (15-17 million square miles). Recent estimates by the UN suggest that around 50,000 square miles of the world's forests are now being lost to deforestation *every year*, with South America alone losing more than fifteen thousand square miles annually. If you'll recall one key statistic from our previous section, that 50,000 square miles of lost forests is very close to the 46,000 square miles of deserts that are *added* to the world's landscape every year. It's not the *same* acreage, of course, but it is an indicator that the world's ecology in general is being steadily degraded—and the pace at which it's happening.

For the primary/old-growth forests that remain (found primarily in Canada, Russia, and the Amazon basin) the overall statistics total roughly half that amount: we've been reduced to about 7 million square miles of mature, primary growth forests in the world. It has been estimated that "unless significant measures (such as seeking out and protecting old growth forests that have not been disturbed) are taken on a worldwide basis, by 2030 there will only be 10%

remaining, with another 10% in a degraded condition."—*Wikipedia.* It would appear that one indicator that "civilization" has arrived to a region is that the old-growth forests have been cut down. One measure of the "civility" of such a civilization is how they've made use of the land they've cleared: did they replant the trees they cut, looking ahead to future timber needs? Did they retask the land as productive cropland or pasture? Or did they merely take the money and run?

As I said, there's nothing new about the process of deforestation. What's news is the *rate* at which it's happening. One factor in flux is the *reasons* the forests are being cleared. A hundred years ago, subsistence farming—with its slash-and-burn techniques—accounted for about half of the world's deforestation activity, followed by clearing the land for commercial agriculture, and of course, logging operations. Government-sponsored programs encouraging transmigration in places like Latin America, India, and Southeast Asia, made deforestation *seem* to make sense, at least in the short term. But within the past thirty years or so, a shift has taken place. What's driving deforestation now is global industry: commercial logging, large scale cattle ranching, and agriculture on a grand scale. This is all being prompted, of course, by the sudden and alarming increase in human population growth.

While the exact figures are in dispute, everyone seems to agree that (1) the pace of deforestation has picked up dramatically during the past half-century, and (2) it's only a matter of time before we've done irretrievable damage to the earth. Let us reflect upon this from a Biblical perspective. God isn't in "creation mode" anymore. I may be reading too much into this, but during the Millennial reign of Christ, He has promised to *heal* the land—not re-create its entire biosphere. That means that there's a fuse on this bomb, and it has already been lit: something will have to be done—and soon—to halt the devastation of the world's forests before they're all gone. And when will that be? Environmental scientists calculate that that tropical rainforests 50 years ago covered fourteen percent of the world's land surface, but they now cover only five to seven percent. At this pace, *all* of the tropical forests will be gone by the middle of the 21st century. Granted, there is more to deforestation than tropical rainforests, but they're a unique and irreplaceable haven of biodiversity, something the human race depends upon, whether we know it or not.

But stopping the deforestation process is easier said than done. It's one thing for academics, scientists, and bureaucrats to sit in their ivory towers and declare that the cutting of the rainforests must cease and desist forthwith. It's different in the real world, where things are not quite so simple or straightforward. The *University of Michigan* website offers some cogent insights into the complexity of the issue: "Deforestation has many causes. Population pressures, profits, and internal social and political forces can all push up the rate of forest loss. Access to

markets, requiring roads and capital, is an additional powerful force, recently expanded due to the suite of changes referred to as globalization. Poor countries with expanding populations, inequitable distribution of wealth and power, and possibly corrupt governments are especially vulnerable."

The Bible reminds us that the love of money is the root of all sorts of evil. That is certainly true when it comes to deforestation: "In Indonesia, powerful families allied with government rulers control large and highly valuable timber concessions. These forests are being rapidly liquidated, at enormous profit." In South America, the economics of rainforest encroachment are being driven from another direction: "In Brazil, many of the rural poor are moving to cities for work, and not finding it. Productive farmland is controlled by a wealthy elite with a long history of land ownership, and so many of the rural poor are landless. By opening its frontier—the Amazon forest—to its landless poor, Brazil seeks to provide a safety valve for what otherwise might be an explosive political situation. In many areas, poor people have few options to make income, and forests have few protectors, so land is cleared for agriculture and valuable timber is sold for profit." So this is kind of like the guy on LSD who tries to fly off the roof of a tall building—while handcuffed to a friend who's begging him not to jump.

Americans and Europeans may cluck self-righteously at this, but the fact is, we "harvested" our own forests in this very same way centuries ago—reaping profits and building our nation by exploiting/utilizing (I'll let you decide which) our God-given woodland natural resources. One factor to consider is that the more prosperous the nation, the less deforestation is likely to take place: in countries with a per capita GDP of \$4,600 or more, net deforestation rates level off or decline. That is, though native wood is still being used, it is being replanted (or at least allowed to regenerate). The land isn't merely abandoned or converted to pasture. Indeed, as I look out the window of my Virginia study, I can see nothing but hundred-foot-tall oaks, hemlocks, maples, and other hardwood trees, although I know that sometime within the last sixty or eighty years, this entire area was logged over. It's no longer an "old-growth" forest—but it *is* a forest.

We have been speaking as if it's a "given" that deforestation is a bad thing, but is it, necessarily? What do forests do for our planet that couldn't be done just as well with croplands, pasture, or prairie? It's a common misconception that rainforests contribute most of the world's breathable oxygen, but that's not really true—all green plants give off oxygen as a byproduct of photosynthesis, and just as important, they all take carbon dioxide out of the atmosphere, "sequestering" it as biomass as long as the plant lives. So on that score, it would seem that alfalfa or corn might keep our atmosphere in just as good a condition as rosewood trees and ferns do. But there's more to it. Forests effectively manage fluctuations in two significant greenhouse gasses. One of them—carbon dioxide (CO<sub>2</sub>)—gets loads of "bad press" these days, while the other—water vapor—is virtually ignored. Let us again consult with the *University of Michigan*: "Forests influence climate. The within-year fluctuations in atmospheric CO<sub>2</sub> in the temperate zone include a spring-through-autumn decline due to plant photosynthesis during the growing season, and an autumn-through-spring rise in CO<sub>2</sub> as respiration and decomposition exceed photosynthetic uptake." In other words, when the leaves are on the trees in the summer, atmospheric carbon levels decrease, and when they fall off in the winter, CO<sub>2</sub> levels rise correspondingly. But quite a bit of carbon will have been absorbed into the trunk and branches—the structure of the tree—and it will remain there as long as the tree is alive.

The forests' handling of *water vapor* is far more significant in tempering climate: "At a more regional scale, forests influence local climate and weather. Rain forests transport great quantities of water to the atmosphere via plant transpiration. (Water is taken up by plant roots, bringing dissolved minerals into plant tissues. Plants exchange gases with the atmosphere through openings in their leaves, and lose water in the same way. That water loss provides the plant with a means to transport materials upwards, and so is beneficial, so long as water loss is not excessive). Much of that transpired water replenishes the clouds and rain that maintain the rain forest. If the forest is cut, much more of that rain will become river water, flow to distant seas, and the region will become permanently drier. No rain forest can regenerate if this occurs. Forests maintain local climate and strongly influence global fluxes of oxygen and carbon dioxide."

Obviously, once the forest is gone, all sorts of problems can begin to compound upon each other. Flooding, topsoil erosion, and soil nutrient depletion are only the beginning. "Forests protect the top soil and husband important nutrients. A famous study of Hubbard Brook, New Hampshire found that, after forest harvest, summer streamflows greatly increased (because the forest was no longer transpiring water) and nutrient outflow also increased greatly. The annual flood crest of the Amazon River has increased over recent years without any concomitant increase in rainfall, presumably due to deforestation. Damaging floods are one frequent consequence of deforestation."

But as I said, the atmospheric culprit that today's "environmentalists" invariably rail against is carbon dioxide, not water vapor. We have all heard horror stories in the news claiming that CO<sub>2</sub> in the earth's atmosphere is the primary cause of global warming, and if we don't hang up the keys to our SUVs, we'll all be dead by Tuesday. (Well, it *used to be* global warming; now it's called "climate change," because the earth's temperature hasn't really risen at all in the past twenty years. Oops. In the 1970s, in fact, they were hysterical about global

*cooling*.) It has become all too apparent that political ambition and economic advantage are what's *really* driving these carbon terrorists—excuse me, "climate scientists." (*Real* concern for the environment might have suggested to Al Gore that perhaps he should not fly around in his own personal Gulfstream jet, which puts out more  $CO_2$  than a small volcano.) If they can vilify carbon dioxide and make their case stick, the green elite can sell "carbon credits" to the rich (allowing *them* to pollute all they want, for a price) and make themselves filthy rich in the process.

So let's make something perfectly clear: the air we breath has so little  $CO_2$  in it (comparatively speaking), it's almost silly. By volume, dry air contains 78.09% nitrogen, 20.95% oxygen, 0.93% argon, 0.039% carbon dioxide, and small amounts of other gases, including a varying amount of water vapor, around 1% on average. Let that sink in: the earth's atmosphere contains less than four one-hundredths of one percent carbon dioxide. There is almost twenty-four times as much *radiogenic argon* in the atmosphere as there is  $CO_2$ . (Don't be alarmed: argon is totally inert, even though it sounds scary.) There is also about three times as much of "the other greenhouse gas," the dreaded dihydrogen oxide (otherwise known as water vapor—H<sub>2</sub>O) in dry air than there is carbon dioxide, but you don't hear of ivory tower academics waging war on water. Let's face it:  $CO_2$  is a natural—even essential—component of our atmosphere. All green plants depend upon its presence, utilizing it in the process of photosynthesis to replenish the oxygen in the atmosphere.

That being said, in spite of its relatively small concentration in the atmosphere,  $CO_2$  *is* ecologically significant. Because of the wavelengths at which it absorbs and emits infrared radiation, it does play a role in the earth's "greenhouse effect," a process in which thermal radiation from the ground is absorbed by atmospheric greenhouse gases, raising the surface temperature above what it would have been had not the greenhouse gases been present. It's sort of like throwing an extra blanket on your bed to keep you warmer in the winter. This rise in the earth's temperature could (in theory) melt the polar ice caps, stopping the "conveyor" that circulates the earth's oceans (something driven by the density differential between salt water and fresh). That would be a bad thing.

So what effect does deforestation have on rising  $CO_2$  levels? As it turns out, a lot. Living forests "sequester" carbon. That is, carbon dioxide is removed from the atmosphere by the leaves of living plants—the trees of the forest—and it is slowly released back into the atmosphere from fallen leaves and dead tree trunks. Mature forests (over 200 years old) are found to be at carbon equilibrium, releasing as much  $CO_2$  from decaying biomass as is taken in through photosynthesis. When a forest is cut down, though, whatever carbon it held in "trust" is released. Exacerbating this, of course, is that, especially in the tropics,

the land is often further cleared by burning the logging residue—projecting megatons of carbon into the atmosphere all at once. So not only is the mechanism for future carbon sequestration destroyed, the sudden release of the forest's stored carbon into the air is like rubbing salt into the earth's wound.

The "carbon police," however, concentrate their efforts instead on discouraging the use of fossil fuels—petroleum, coal, natural gas, etc., the things that allow our mobile, affluent, comfortable, electricity-dependent way of life to exist. They haven't given up *their own* limousines and private jets, though they *have* persuaded their sycophants to trade in their SUVs for Priuses. (Gee, I wonder if these folks have done the environmental math on hybrid battery life, replacement costs, and disposal.)

The hypocrisy factor aside, there is a far more obvious carbon culprit to address. To quote from the *University of Michigan* again, "Tropical deforestation contributes as much as 90% of the current net release of biotic carbon dioxide into the atmosphere. This change may represent as much as 20%-30% of the total carbon flux due to humans—i.e., *rivaling the carbon release due to fossil fuel burning*. Deforestation thus is an important potential source of carbon."

In other words, just as much carbon is pumped into the atmosphere in the process of decimating the world's rainforests as all the fossil fuels used for electricity generation, home heating, and transportation—*combined*. Considering the fact that living forests actively sequester carbon, it would seem the natural, logical course of action to throw one's efforts into preserving and restoring the world's tropical rainforests—especially in the Amazon basin. But of course, you can't really make a quick buck doing that, so don't hold your breath.

Nor can you control, regulate, or profit by the other 40-50% of carbon dioxide sources. In the interests of full disclosure, let us again consult Wikipedia: "Most sources of CO<sub>2</sub> emissions are natural, and are balanced to various degrees by natural CO<sub>2</sub> sinks. For example, the natural decay of organic material in forests and grasslands and the action of forest fires results in the release of about 439 gigatonnes of carbon dioxide every year, while new growth entirely counteracts this effect, absorbing 450 gigatonnes per year. Although the initial carbon dioxide in the atmosphere of the young Earth was produced by volcanic activity, modern volcanic activity releases only 130 to 230 megatonnes of carbon dioxide each year, which is less than 1% of the amount released by human activities (at approximately 29 gigatonnes). These natural sources are nearly balanced by natural sinks, physical and biological processes which remove carbon dioxide from the atmosphere. For example, some is directly removed from the atmosphere by land plants for photosynthesis and it is soluble in water forming carbonic acid. There is a large natural flux of  $CO_2$  into and out of the biosphere and oceans. In the pre-industrial era these fluxes were largely in balance. Currently [only] about

57% of human-emitted CO<sub>2</sub> is removed by the biosphere and oceans." Deforestation, then, is a fool's bargain—selling the future well being of the planet for a relative pittance in short-term profits.

How much atmospheric carbon dioxide is too much? It's something nobody seems to know for sure, and it's certainly something no one wants to find out the hard way. One thing is certain: since the industrial revolution, CO<sub>2</sub> levels have risen dramatically. Over the past half a million years or so, atmospheric CO<sub>2</sub> levels fluctuated (in sync with ice ages) between roughly 200 and 275 parts per million. Over the past 10,000 years (judging by Antarctic ice cores), the concentration has held steady at about 260-280 ppm. At the time of this writing, the concentration stands at 397 ppm—and is still rising. The esteemed British meteorologist Brian Hoskins (among others) has suggested that the "tipping point"—the level at which bad things can be expected to start happening—is 400 ppm. Granted, this is still well below the peak CO<sub>2</sub> level in our planet's history, reached about 500 million years ago. That being said, the scientists swear we're now on the precipice of a carbon dioxide "event horizon."

What can be done? The only two sources of atmospheric carbon dioxide that might respond to human intervention—together totaling half the world's  $CO_2$  emissions—are fossil fuels and rainforest destruction. Eliminating the use of fossil fuels altogether would instantly plunge the developed world back into the dark ages—*literally*. Millions would starve to death—if they didn't freeze to death first. But an immediate halt to (and preferably, reversal of) the rape of the rainforests would tend to (1) stabilize atmospheric  $CO_2$  levels worldwide, (2) reduce flooding, (3) preserve soil nutrients, and (4) maintain topsoil levels. But the governments who are currently allowing their rainforests to be cut down have little or no direct incentive to stop the practice—so the carnage continues apace.

Another factor we haven't yet discussed could prove to be of immeasurable importance as well. Rainforests are the earth's last bastions of biological diversity, but fewer than one percent of the tropical plants within them have yet been studied. Those that have been screened have in many cases proven to be unique and useful sources of medicines or food crops. For example, vincristine and vinblastine are effective anti-cancer drugs that were developed from a wild periwinkle found in the forests of Madagascar. I am reminded of a prophetic notice concerning trees found in the New Jerusalem: "And [the angel] showed me [John] a pure river of water of life, clear as crystal, proceeding from the throne of God and of the Lamb. In the middle of its street, and on either side of the river, was the tree of life, which bore twelve fruits, each tree yielding its fruit every month. The leaves of the tree were for the healing of the nations." (Revelation 22:1-2) God apparently likes trees and plants. He made lots of different kinds. It would seem a shame to destroy them before we've even had a chance to study and appreciate them.

If we succeed in killing the world's forests, we will have killed ourselves. And yet, we humans seem bent on doing precisely that in the name of progress, political expediency, and quick profits. If the trend continues at the present pace, by the fourth decade of the twenty-first century, the destruction of the world's rainforests will have reached the point of no return, forever altering the earth's weather patterns, destroying the soil structure of vast tracts of land, and making it impossible (short of divine intervention) for our planet to adequately cope with ever increasing levels of carbon dioxide in our atmosphere. Once again, even if you aren't willing to receive the Bible's revealed timeline, you're going to have to face the parallel reality of a rapidly decaying world—an ecological paradigm shift of "Biblical proportions," happening precisely when the prophets said it would.

### Shrinking Aquifers

I hypothesized a while back that the earth could easily support two or three times its present population if only there was enough water when and where it was needed. And I have noted that drought—the absence of sufficient water resources—is one of Yahweh's promised responses to rebellion against Him. So when deserts expand and forests shrink, we should be aware that there is a *reason* for this—it isn't all just bad luck, or even poor stewardship on the part of mankind (though that certainly doesn't help matters).

The timely, predictable rain from the heavens that made the Levant "a land flowing with milk and honey" at the time of the exodus came with a built-in backup plan. Wells and springs dotted the landscape since the days of the earliest patriarchs, making water available even during the dry season. (See for example, Genesis 21:25.) Rain in its season doesn't all just run off or evaporate. Some of it sinks in, held in the porous soil beneath our feet. These underground reservoirs are known as aquifers. Given adequate rainfall and snowfall, the world's aquifers feed reliable wells and springs in areas where no obvious water source—like a river or lake—is present. In fact, there is approximately thirty times as much fresh water held in aquifers beneath the earth's surface as there is in all of the world's fresh surface waters.

People tend to take such things for granted, because we learned to dig wells thousands of years ago. But we shouldn't. Underground water sources are as impressive a geological engineering feat as anything we'll find on earth—and they're specifically identified in scripture as the work of God. John writes of a time (yet future) in which the witness of godly men will no longer be heard on the earth, so an angel—a spirit messenger—is sent to bear witness to the truth. John writes, "Then I saw another angel flying in the midst of heaven, having the everlasting gospel to preach to those who dwell on the earth—to every nation, tribe, tongue, and

people—saying with a loud voice, 'Fear God and give glory to Him, for the hour of His judgment has come; and worship Him who made heaven and earth, the sea and springs of water.'" (Revelation 14:6-7) The angel is heard bidding men to make a choice: to honor the God of creation, Yahweh, for He (manifested as the risen and glorified Christ) is coming to judge the earth. That is, He is coming to separate those who, when confronted with this choice, decide to be on God's side, from those who will opt instead to ally themselves with Satan and his "Antichrist."

When this angelic announcement is made, there is still time to choose—to voluntarily align oneself with Yahweh (even though the world is solidly arrayed in the enemy's camp and is prepared to bring enormous pressure to bear on the repentant "politically incorrect" rebels). Christ has not yet returned at this point, so no "proof" of the angel's claim of impending wrath is forthcoming. What evidence does he offer that God is serious about the coming judgment? What credentials does he present? Only that the God who is coming to judge the earth is the same One who "made the sea and springs of water." In "normal" times, this would be an exceedingly odd thing to say, because the world's seas have always been full of life, and the earth's groundwater has sustained humanity since the dawn of civilization. As late as a half century ago (when there were half as many people inhabiting the planet), most people thought that the world's fresh water supply was unlimited. We have since learned that it is not.

The implication, then, is that by the time the angel delivers his warning to the nations, the seas are dying (see Revelation 8:9 and 16:3), and the earth's aquifers are no longer reliable (Revelation 11:6). Whether the waters have "turned to blood," or they just aren't there anymore, getting a simple drink of water is no longer as easy as it once was. It's turning out to be one more in a long string of forensic clues that we are indeed living on the doorstep of the Last Days. Something as monolithic as the earth's groundwater supply doesn't disappear overnight. It takes decades to set a trend like this in motion, and once moving, it can be expected to be equally hard to stop.

You know you're in trouble when they start setting "standards" defining just how bad it's gotten—or might become, should the current trend continue. In the case of the availability of fresh water, one such gauge is the Falkenmark Water Stress Indicator, which states that a country or region is experiencing "water stress" when the annual water supply per person drops below 1,700 cubic meters, at which point periodic or limited water shortages can be expected. And when water supplies drop below 1,000 cubic meters per person per year, the country officially faces "water scarcity."

Even the lower "water scarcity" figure may sound like a lot of water for personal use, since *I know* you struggle to get down your recommended eight 8-ounce glasses of water per day. But there's a whole lot more to it than what you

drink. You bathe, wash the dishes and your clothes, and maybe water the garden. You may wash your car now and then. (I mostly just wait until it rains.) Then there's the matter of sewage; you *do* flush your toilets, right? But all of that's just the tip of the iceberg. The food you eat takes lots of water to grow and prepare. Grains and vegetables are water intensive, but meat production is totally out of proportion compared to anything else we might eat. For example, it takes 60 pounds of water to grow one pound of potatoes; 108 pounds of water for one pound of wheat; 168 for corn; 229 for rice; and 240 for soybeans. But it takes *12,000 pounds* of water to bring one pound of feedlot beef to market. Thus it's really no wonder the Food and Agriculture Organization (an agency of the United Nations) states that "by 2025, 1.9 billion people will be living in countries or regions with absolute water scarcity, and two-thirds of the world population could be under stress conditions."

The simple fact is that now that there are over seven billion people inhabiting this planet (all of whom like to eat and drink), we are using up our fresh water resources faster than nature can replenish them. The left likes to blame "climate change," (which they prefer to attribute to CO<sub>2</sub> emissions from industrial sources they can tax) but the problem stems more directly from two other causes, (1) deforestation (as explained above), and (2) a vast increase of meat—specifically (and more to the point) grain-fed feed-lot meat, as opposed to pasture-fed farm animals—as a component of the average human diet over the past half century.

*Wikipedia* reports that "The *New York Times* article, 'Southeast Drought Study Ties Water Shortage to Population, Not Global Warming,' summarizes the findings of Columbia University researcher on the subject of the droughts in the American Southeast between 2005 and 2007. The findings were published in the *Journal of Climate*. [How's *that* for convoluted provenance?] They say the water shortages resulted from population size more than rainfall. Census figures show that Georgia's population rose from 6.48 to 9.54 million between 1990 and 2007. After studying data from weather instruments, computer models and measurements of tree rings which reflect rainfall, they found that the droughts were not unprecedented and result from normal climate patterns and random weather events. 'Similar droughts unfolded over the last thousand years,' the researchers wrote. 'Regardless of climate change, they added, similar weather patterns can be expected regularly in the future, with similar results.'"

Loath to endanger their funding, however, the Columbia report included this schizophrenic conclusion: "During the post 2005 drought it appears that evaporation was reduced as well as precipitation. There is no clear signal of anthropogenic climate change in this drought. The post 2005 drought therefore appears to have been caused partly by atmosphere-ocean climate variability and partly by internal atmosphere variability, all of which is typical of what has been

happening in the region for hundreds of years. The serious stress the drought put on social and agricultural systems in the region came about purely due to lack of adequate planning based on knowledge of regional climate variability. Belated planning now must also take into account the possibility that climate change will increase stress on regional water resources." In other words: *man-caused climate change had nothing to do with the drought in the American southeast, but we need to plan for future issues caused by man-caused climate change, 'cause that's the villain we believe in.* I guess it would be too much to ask for them to acknowledge that "The reason y'all have been suffering from drought is that you've turned your back on the God who sends the rain."

Overdrafting from aquifers (extracting groundwater in volumes beyond the safe yield or equilibrium) can lead to parallel problems that further exacerbate the unavailability of regional water resources. They can become polluted with pesticides and fertilizer runoff; salt water intrusion can make them unfit for human consumption, farming, or industrial uses. And ground subsidence can occur when too much water is extracted from weight bearing strata; if this happens, the *capacity* of the aquifer is reduced: it cannot be recharged to its primeval level.

You needn't take my word for any of this, of course. But perhaps we should heed the warning of the prestigious American Geophysical Union who, in an article ominously entitled "Groundwater Depletion Rate Accelerating Worldwide" (September 23, 2010) confirmed that our planet's aquifers are in deep trouble. "In recent decades, the rate at which humans worldwide are pumping dry the vast underground stores of water that billions depend on has more than doubled, say scientists who have conducted an unusual, global assessment of groundwater use. These fast-shrinking subterranean reservoirs are essential to daily life and agriculture in many regions, while also sustaining streams, wetlands, and ecosystems and resisting land subsidence and salt water intrusion into fresh water supplies. Today, people are drawing so much water from below that they are adding enough of it to the oceans (mainly by evaporation, then precipitation) to account for about 25 percent of the annual sea level rise across the planet, the researchers find."

Did you catch that? The "green lobby" would like you to believe that the earth's rising seas are caused solely by anthropogenic global warming (which we've already established is due as much to rainforest decimation as to industrial causes), but a sizable component of the rise in sea level is actually due to the overtaxing of our groundwater resources. (By the way, you may be wondering if sea-level rise is a big threat to our planet. For the past sixty years it has been rising at an average rate of 1.7 millimeters (about 1/16 of an inch) per year. Is that significant? You tell me.)

The AGU article continues: "Soaring global groundwater depletion bodes a potential disaster for an increasingly globalized agricultural system, says Marc Bierkens of Utrecht University in Utrecht, the Netherlands, and leader of the new study [designed to compare estimates of groundwater added by rain and other sources to the amounts being removed for agriculture and other uses]. 'If you let the population grow by extending the irrigated areas using groundwater that is not being recharged, then you will run into a wall at a certain point in time, and you will have hunger and social unrest to go with it,' Bierkens warns. 'That is something that you can see coming for miles.'" I must agree. "Hunger and social unrest" sounds exactly like what Yahweh's prophets warned us was to come upon the earth during the days leading up to the Tribulation. Yahshua called it "famine, wars, and rumors of war." Not surprisingly, I perceive that we will "run into the wall" (as Bierkens puts it) precisely when the scriptures indicated: the fourth decade of the twenty-first century. Bad news for the world, but hey, at least the signs are *consistent*.

"Bierkens' team taps a database of global groundwater information including maps of groundwater regions and water demand. The researchers also use models to estimate the rates at which groundwater is both added to aquifers and withdrawn. For instance, to determine groundwater recharging rates, they simulate a groundwater layer beneath two soil layers, exposed at the top to rainfall, evaporation, and other effects, and use 44 years worth of precipitation, temperature, and evaporation data (1958–2001) to drive the model.

"Applying these techniques worldwide to regions ranging from arid areas to those with the wetness of grasslands, the team finds that the rate at which global groundwater stocks are shrinking has more than doubled between 1960 and 2000, increasing the amount lost from 126 to 283 cubic kilometers (30 to 68 cubic miles) of water per year. Because the total amount of groundwater in the world is unknown, it's hard to say how fast the global supply would vanish at this rate. But, if water was siphoned as rapidly from the Great Lakes, they would go bonedry in around 80 years. Groundwater represents about 30 percent of the available fresh water on the planet, with surface water accounting for only one percent. The rest of the potable, agriculture friendly supply is locked up in glaciers or the polar ice caps. This means that any reduction in the availability of groundwater supplies could have profound effects for a growing human population."

Not surprisingly, "The new assessment shows the highest rates of depletion in some of the world's major agricultural centers, including northwest India, northeastern China, northeast Pakistan, California's central valley, and the midwestern United States. 'The rate of depletion increased almost linearly from the 1960s to the early 1990s,' says Bierkens. 'But then you see a sharp increase which is related to the increase of upcoming economies and population numbers; mainly in India and China.'

"As groundwater is increasingly withdrawn, the remaining water 'will eventually be at a level so low that a regular farmer with his technology cannot reach it anymore,' says Bierkens. He adds that some nations will be able to use expensive technologies to get fresh water for food production through alternative means like desalinization plants or artificial groundwater recharge, but many won't." It's worth noting that the one nation on earth that's a lightning rod for the world's irrational and unrelenting hatred (mostly because Yahweh has declared His undying love for her) is Israel. And Israel is (not coincidentally) the undisputed world leader in water desalinization technology. So attack Israel if you feel you must, but be prepared to go thirsty for your trouble.

The trend toward the depletion of the world's aquifers seems to be accelerating. This statistic is typical: "According to a 2013 report by research hydrologist, Leonard F. Konikow, at the United States Geological Survey (USGC), the depletion of the Ogallala Aquifer [the great mid-American groundwater system stretching from South Dakota to Texas] between 2001–2008, inclusive, is about 32 percent of the cumulative depletion during the entire 20th century."

I hate to sound like a broken record (though that's kind of the point of this whole exercise, isn't it?). If the trend continues at the present pace, by the fourth decade of the twenty-first century, the depletion of the world's aquifers will be causing disastrous water shortages—which can't help but translate into food shortages, sanitation issues leading to disease, and even fuel shortages (since shale-oil and coal production are also water-intensive endeavors). And if the prophetic scriptures are to be taken seriously (as I believe they must) then the second half of the Tribulation (2030-2033, by my watch) will be plagued with a dearth of rainfall as well (see Revelation 11:6), which will make recharging the already overtaxed aquifers impossible. But even if you think God doesn't exist and the Bible is all a big fairy tale, you still have to look forward to living in a world in which getting a simple drink of water is a huge problem.

If I were you, I'd follow the advice of the angel of Revelation 14: **"Fear God** and give glory to Him.... Worship Him who made heaven and earth, the sea and springs of water." That's my strategy, anyway.

#### Environmental Pollution

I grew up in a suburb of Los Angeles during the 1950s. My first visceral experience with "pollution" was smog—air pollution so thick that on bad days, my lungs would actually begin to ache. I also remember that my chores included

taking our household trash out to a backyard incinerator (a sort of concrete-block free-standing oven designed to burn rubbish) and lighting it up. In retrospect, it seems backyard incinerators were a really dumb idea in a place with a natural inversion layer that tended to hold the heat and pollutants in place.

The phenomenon of "smog" was part of the character of the Los Angeles basin even before there *was* a Los Angeles in any form we'd recognize today. Author Richard Henry Dana wrote of a voyage he made as a common seaman during the 1830s in his autobiographical work, *Two Years Before The Mast*. The journey took the ship *Pilgrim* around Cape Horn and up the coast of the American continents. Dana notes that even back then, the native American name for what would become the L.A. basin was "the Land of Mists," because of the pervasive haze that hung over the area, though there were comparatively few people living there, and no industry at all.

The air over my boyhood home got better as the years wore on, no doubt the result of some simple and logical regulations designed to rein in the worst sources of air pollution in the area. By the time the Environmental Protection Agency (the EPA) came online in the early 1970s, air quality in Southern California was already vastly improved. Now, half a century later, we are still searching for that elusive balance between the undeniable benefits of policing environmental pollution and the disadvantages of living under excessive and incentive-crushing government regulation, wielded by a monolithic, unaccountable, self serving bureaucracy—one of dozens that have been grasping increasing levels of power and influence in America since I was a boy. It's the perennial conundrum of the human condition: something strong enough to help you is by definition also powerful enough to destroy you.

Say what you will about government overreach, though, the pollution picture in America *has* gotten better over the past few decades. Our air and water quality (by some measures) *have* improved. Of course, some portion of that improvement is due to the fact that the industries that were the worst polluters have either been forced out of business, or have found friendlier economic climates elsewhere—in other countries—who are (as we once were) more concerned with making a profit than with leaving the world a habitable place. Let's face it: as every Christian should know, "running clean" is a costly endeavor. What is true for morals is also true for manufacturing. Slave labor and belching smokestacks are (like sin in general) both unsustainable and deadly; but that doesn't mean unregenerate men won't find taking short cuts in pursuit of quick profits an unacceptable strategy.

Here's the rub. The EPA's legal mandate is to establish and enforce standards that are neither more nor less stringent than necessary to protect public health and welfare. But in so doing, under the law, the EPA *may not consider the costs* of implementing those standards. So the patient, so to speak, may be cured of cancer,

only to die of a heart attack when he sees the bill for the doctor's services. Detroit and Pittsburg may be dead or dying—the result of our automobile and steel industries being on life-support in this country (partially due to stringent environmental quality regulations), but Shanghai, Beijing, Guangzhou, and Shenzhen, not to mention Tokyo and Delhi, are more than happy to take up the slack. According to the World Bank, sixteen of the world's twenty most polluted cities are in China. America's pollution problems didn't disappear; they merely got up and moved to new locations. Meanwhile, we don't really *make* much of anything anymore. We merely move dollars around, like rearranging the deck chairs on the Titanic.

Although we all intuitively know pollution when we see it, we should probably pin down a more definitive description. *The American Heritage Science Dictionary* describes pollution as "contamination of air, water, or soil by substances that are harmful to living organisms. Pollution can occur naturally, for example through volcanic eruptions, or as the result of human activities, such as the spilling of oil or disposal of industrial waste."

It also helps to be aware that substances don't have to be "bad," necessarily, to function as pollutants. They merely have to be out of balance with the natural order. The textbook *Understanding Environmental Pollution* says, "Anything is toxic at a high enough dose. ... Even water, drunk in very large quantities, may kill people by disrupting the osmotic balance in the body's cells." Another example: "Potatoes make the insecticide, solanine. But to ingest a lethal dose of solanine would require eating 100 pounds of potatoes at one sitting. However, certain potato varieties—not on the market—make enough solanine to be toxic to human beings. Generally, potentially toxic substances are found in anything that we eat or drink." And I might add that with the advent of genetically modified foods, that is more obviously true that it ever was.

Pollution, then, is where you find it, and it happens pretty much automatically wherever people congregate—once again identifying the world's burgeoning population as a proximate cause of the problem. But you don't have to have seven billion souls on the planet to experience pollution. We are reminded that the Valley of the Sons of Hinnom, running south of the old city of Jerusalem, was the site of perpetual trash fires: it was the "city dump," so to speak (not to mention being the site of the child sacrifices of Molech worship in the bad old days, and the place where the corpses of executed criminals were unceremoniously dumped in Roman times). Yahshua Himself recruited the place as a metaphor for hell—not *sheol*, you understand (the grave, the pit, the abode of the dead), but *hell itself*, the eternal state of unrelenting conscious torment for those who have embraced Satan's spirit. He calls the place *Gehenna*—a transliteration of the Greek *Gehinnom*: the place (or land: *ge* in Greek) of Hinnom.

So (according to liberal logic) if we get rid of the people, we'll get rid of the pollution. They love to fantasize about how wonderful the world would be without all the humans. We've previously discussed their insane "progressive" pipe dream of killing off 90-95% of the world's population with ebola or some similar plague. But they've forgotten one slight glitch to their plan: the corpses of their slain would *in themselves* comprise the worst sort of pollution. On the face of it, graveyards occupy far more of the earth than landfills do, but with that many dead, nobody's body would get properly buried.

I hate to be the bearer of bad news (again) folks, but your wildest fantasies are about to come true—though not exactly as you envisioned them. You see, Yahweh's prophets foretold of a time in which the vast majority of the people *would* be slain: "For thus says Yahweh concerning the sons and daughters who are born in this place, and concerning their mothers who bore them and their fathers who begot them in this land: They shall die gruesome deaths; they shall not be lamented nor shall they be buried, but they shall be like refuse on the face of the earth. They shall be consumed by the sword and by famine, and their corpses shall be meat for the birds of heaven and for the beasts of the earth." (Jeremiah 16:3-4) The near-term fulfillment of this squishy prophecy was the siege and destruction of Jerusalem by Nebuchadnezzar. But as you know, these things invariably have both near and far fulfillments. What happened to Jerusalem in 586 BC (and again in 70 AD under the Romans) is merely a preview, a foretaste, of what will happen worldwide during the Tribulation.

Don't believe me? Jeremiah gets more specific a bit later on, and this time he's not coy about identifying *the whole world* as the ultimate object of God's wrath: "Thus says Yahweh of hosts: Behold, disaster shall go forth from nation to nation, and a great whirlwind shall be raised up from the farthest parts of the earth. And at that day the slain of Yahweh shall be from one end of the earth even to the other end of the earth. They shall not be lamented, or gathered, or buried; they shall become refuse on the ground." (Jeremiah 25:32-33) The reasons for this tragedy are exactly the same as those suffered by the Jews under Nebuchadnezzar and Titus: they—the entire human race this time—have turned their backs on Yahweh. The translators are oh-so-polite here: the word translated "refuse" (in both passages) actually means dung, *excrement*. Even Al Gore would have to admit this inconvenient truth: forget CO<sub>2</sub> and global warming—the worst sort of pollution imaginable is your own stinking corpse lying on the ground, unburied and unmourned. The fact that seven billion of your closest friends are rotting there with you is not much comfort, is it?

Like so many of these potential world killers (like shrinking aquifers, deforestation, desertification, soil depletion, genetic corruption, explosive population growth, creeping poverty, and the demise of the family, etc.) pollution

as a threat to humanity didn't just show up on our doorstep one day. It took decades—even centuries—to become the crisis it is today. The website *DoSomething.org* offers the following multi-point assessment of pollution's current threat to our world (note: I've reordered their list):

*"1. Pollution is one of the biggest global killers, affecting over 100 million people. That's comparable to global diseases like malaria and HIV."* While that may pale in comparison to some other potential threats, like malnutrition, war, heart disease, and cancer, it is more preventable than most hazards—or would be, if only we embraced Yahweh's mandate to take care of this nice planet He gave us to live on. Unfortunately, the demographics of pollution fall heaviest upon the shoulders of the poor, the helpless, the young, and the needy. In the world's most polluted locales, far more babies are born with birth defects, and children can suffer losses of up to 30 to 40 IQ points—making working or thinking your way out of your troubles harder than ever. Worse, life expectancies can drop as low as 45 years because of cancers and other diseases.

"2. While children only make up 10% of the world's population, over 40% of the global burden of disease falls on them. More than 3 million children under age five die annually from environmental factors." The Bible admonishes us to "allow the little ones to come to Christ," and to "show mercy to widows and orphans." Callously and unnecessarily polluting the world is a subtle form of "oppression" against the very people God commanded us to protect.

We've already seen how pollution of the soil (with herbicides and pesticides, including GMOs) has compromised our ability to get a nutritious meal. The same sort of thing is true of contaminants in the air. "3. People who live in places with high levels of air pollutants have a 20% higher risk of death from lung cancer than people who live in less-polluted areas." The World Health Organization reports that an estimated 6,400 people die annually because of air pollution in Mexico City (the most populous city in North America), and a million more there suffer from chronic breathing problems. Meanwhile, air pollution in modern industrial China has become legendary. What's not so widely known is that smog generated there can change weather patterns here. It takes just five days for the jet stream to carry heavy air pollution from China to the American continent, where it can prevent clouds from producing badly needed rain and snow. The scriptures, of course, warn of skies so polluted they make the sun look "black as a sackcloth of goat's hair," and the moon "like blood." During the Tribulation, people will be longing for the "good old days" when a smoggy afternoon in Beijing was about as bad as it ever got. But something tells me that by that time, folks will no longer be living long enough to die from cancer.

And the water? "4. Over one billion people worldwide lack access to safe drinking water. 5,000 people die each day due to dirty drinking water." If you'll

recall, the prophetic prognosis for the availability of fresh water (like clean air) will reach crisis proportions during the second half of the Tribulation. But apparently, we've got a pretty good start on it already.

The more affluent we become, the more stuff we throw away. The question is, how careful are we when doing so? "5. Fourteen billion pounds of garbage are dumped into the ocean every year. Most of it is plastic." The problem with plastic, of course, is that it's not very biodegradable. That plastic bottle of overpriced tap water you bought for convenience will still be around, in its original form, hundreds of years from now. "6. Over one million seabirds and 100,000 sea mammals are killed by pollution every year." A fair proportion of that carnage is from trying to eat our indigestible trash.

There's more to it than that, of course: "7. *The Mississippi River carries an estimated 1.5 million metric tons of nitrogen pollution into the Gulf of Mexico each year, creating an oxygen-depleted 'dead zone' in the Gulf each summer about the size of New Jersey.*" The nitrogen, if you'll recall, was supposed to stay in the soil, where it could do some good, but our agribusiness farming practices "flush it down the drain," so to speak. The BP/Deepwater Horizon oil spill in the summer of 2010, as harmful as it was, took the rap for more than its share of the lifelessness in the Gulf of Mexico. But because the chemical and agribusiness giants like Monsanto are a "protected species" by the liberal elite, the "evil" oil company got one hundred percent of the blame in the press. Well, in this case, I guess there was plenty of blame to go around.

The published studies usually focus on pollution in America these days, since we (along with Europe, Canada, and Australia) tend to be more attuned to the problem than the emerging world is. China's (and India's) pollution problems are arguably far worse, but they're making so much money these days picking the bones of American industry, they can't be bothered dealing seriously with the problem—any more than we did a hundred years ago. "8. Each year 1.2 trillion gallons of untreated sewage, stormwater, and industrial waste are dumped into U.S. water." Untreated sewage and industrial waste are obvious hazards; stormwater, not so much. Yes, we would expect a fair proportion of the rainfall to run off into streams and rivers, but if you'll recall, the deforestation of our nation a century or two ago exacerbated flooding, topsoil erosion, and soil nutrient depletion. Streamflows always radically increase after deforestation because the forest is no longer transpiring water vapor back into the atmosphere. But the stormwater pounding our deforested land is taking with it (as we saw in point #6) millions of tons of nitrogen-based fertilizer residue, not to mention pesticides and herbicides. So does this next statistic come a big surprise? "9. Approximately 46% of the lakes in America, and 40% of our rivers, are too polluted for fishing, aquatic life, or swimming."

Here in Central Virginia, I once bought a truckload of supposedly super-fertile "river bottom soil" to mix with compost for use in my garden (since the native soil around here is a dense, sticky red clay; any Southerner knows what I'm talking about). I didn't use all of it; so the remaining dirt pile just sat there—for *years*. After a while I noticed something. Nothing grew in my little heap of left-over river bottom soil. No grass, no baby trees from the surrounding forest, not even *weeds*. Nothing would take root in that stuff. And I finally figured it out: it had once been topsoil that had washed off reclaimed farmland—formerly forest—over the past couple of hundred years. There were so few nutrients and so much herbicide in that "soil," it wouldn't support life of any kind. I think I'll start calling that little foot-tall dirt hill "Mount Doom."

Waste seems to follow affluence as night follows day. "10. Americans make up an estimated 5% of the world's population. However, the U.S. produces an estimated 30% of the world's waste and uses 25% of the world's resources." I can sort of understand why Americans throw away 220 million worn out tires and 1.8 billion disposable diapers every year. But 30 billion foam cups? What ever happened to using real glasses and cups, and washing the dishes?

I, for one, refuse to apologize for being a citizen of an affluent nation, for I realize that our historic standard of living is the direct result of our historic reverence for God. Of course, since comparatively few of us anymore revere Yahweh as our forefathers did, our affluence (on a national scale) will soon be a thing of the past as well. We're already headed that direction like a runaway freight train. But affluence and waste need not be "joined at the hip." We need to examine what comprises our "trash," and why we throw things away. Are we disposing of our possessions because they're used up and worn out, or merely because they're out of style or inconvenient? More to the point, are we careful with the resources God has given us, and thankful for them, or are we driven by institutional idolatry and cultural covetousness? If we're ungrateful for our possessions, we won't appreciate them—or the God who provided them.

In some respects, we've made progress in the way we handle our trash: "11. Recycling and composting prevented 85 million tons of material away from being disposed of in 2010, up from 18 million tons in 1980." The question is: why? What are our motivations? Do we really think we can "save the planet" by composting our garbage, or are we merely doing it because it's the right thing to do? Our motives are important to our Maker. Are we acting responsibly because we don't trust God to work His will in our world, or simply because of our of love for our fellow man?

*LiveScience* offers the following insights into the pollution crises we will face in the next couple of decades. It's geared toward America's pollution problems, but the lessons and challenges are universal. *"Land pollution:* Land can become polluted by household garbage and by industrial waste. In 2010, Americans produced about 250 million tons of garbage consisting of product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, appliances, paint and batteries. That's about 4.3 pounds of waste per person per day, according to the Environmental Protection Agency. A little over half of the waste—54 percent—is gathered in landfills. About 34 percent is recycled or composted, and 12 percent is burned at combustion facilities." In the big picture, very little land is dedicated to landfills in this country. But the problem is not so much finding space for our trash, as it is ensuring that the toxins and contaminants won't leach into the soil, contaminating ground water, or evaporate into the atmosphere. It can be done, but the science doesn't come cheap.

"Commercial or industrial waste comprises a significant portion of our solid waste. Much of it is classified as non-hazardous, such as construction material (wood, concrete, bricks, glass, etc.) and medical waste (bandages, surgical gloves, surgical instruments, discarded needles, etc.). Hazardous waste is any liquid, solid or sludge waste that contain properties that are dangerous of potentially harmful to human health or the environment. Industries generate hazardous waste from mining, petroleum refining, pesticide manufacturing and other chemical production. Households generate hazardous waste as well, including paints and solvents, motor oil, fluorescent lights, aerosol cans, and ammunition." The amount and type of waste a civilization generates, of course, is directly linked to the prosperity and population of that group. A handful of stone-age headhunters in the jungle don't have to worry about disposing of tons of antiquated computer equipment—but they still have bones and feces to deal with. My point is that we need not feel guilty about having trash we must throw away. There is no moral turpitude in simply living one's life—even if there are left-overs. Liberal angst is but one more subtle form of idolatry. But we are responsible for treating our home (Earth, that is) with respect.

*"Water pollution:* Water pollution happens when chemicals or dangerous foreign substances are introduced to water, including chemicals, sewage, pesticides and fertilizers from agricultural runoff, or metals like lead or mercury. Worldwide, more than 500 million people drink water that could be harmful to their health." Polluted water contains disease-causing microorganisms or toxic chemicals. E. coli, giardia (anaerobic flagellated protozoan parasites that live inside the intestines of infected humans or animals), and typhoid bacteria, are all present within the water systems in India, China, Bangladesh, and Africa. Due to inadequate sanitary facilities, *seventy-five percent of the world's population* must deal with water and food that has come in direct contact with animal and/or human feces and urine.

"Water pollution can also affect marine life: oil and chemical pollutants can harm anything living in water. Sewage causes pathogens to grow, while organic and inorganic compounds in water can change the composition of this precious resource. Warming water can also harm quality—thermal pollution can happen when a factory or power plant that is using water to cool its operations ends up discharging hot water. This makes the water hold less oxygen, which can kill fish and wildlife." This, of course, is one of the issues people have with nuclear power generation, though enterprising lobster ranchers have discovered that the delectable crustaceans thrive in the warm waters just outside seaside nuclear power plants.

*"Air pollution:* The air we breathe has a very exact chemical composition; 99 percent of it is made up of nitrogen, oxygen, water vapor and inert gases. Air pollution occurs when things that aren't normally there are added to the air. A common type of air pollution happens when people release particles into the air from burning fuels. This pollution looks like soot, containing millions of tiny particles, floating in the air. Another common type of air pollution is the release of dangerous gases, such as sulfur dioxide, carbon monoxide, nitrogen oxides and chemical vapors. These can take part in further chemical reactions once they are in the atmosphere, creating acid rain and smog.

"Other sources of air pollution can come from within buildings—secondhand smoke is a large problem in many buildings. In developed countries, people often spend 80 percent or more of their time inside the home, so exposure to chemicals or smoke there can also be harmful. Finally, air pollution can take the form of greenhouse gases—such as carbon dioxide or sulfur dioxide—that are warming the planet through the greenhouse effect." I must reiterate that CO<sub>2</sub> and water vapor are "greenhouse gasses" that not only occur naturally, they're essential components of our earth's atmosphere. They're only problematical when they get out of balance with air's other components.

*"Noise pollution:* Even though humans can't see or smell noise pollution, it still impacts the environment. Noise pollution happens when the sound coming from planes, industry or other sources reaches harmful levels. Research has shown that there are direct links between noise and health, including stress-related illnesses, high blood pressure, speech interference, hearing loss. Under the Clean Air Act, the EPA can regulate machine and airplane noise. Underwater noise pollution coming from ships has been shown to upset whales' navigation systems and kill other species that depend on the [sounds of the] natural underwater world. Noise also makes wild species communicate louder, which can shorten their lifespan—not that different from making people scream to be heard their whole lives."

To this, I might add "information overload." That is, the sort of "noise" pollution that invades and overtaxes one's brain—entertainment, advertisement, news, etc. Quiet reflection—meditation, if you will—is practically a lost art. You can't walk down a city street anymore without being assaulted by sights and sounds, all simultaneously screaming: "Look at me!" Kids today are utterly lost without their "mobile communication devices" (you can't just call them "cell phones" anymore). You want to stop and smell the roses? There's an app for that. This constant bombardment of images and ideas, invited or not, comes at the expense of what our minds and hearts were designed to do: to meditate on Yahweh's precepts and contemplate His ways (see Psalm 119:15).

Here's one most of us never think about. "*Light pollution:* Most people think that electricity-powered lights are modern convenience, and couldn't imagine living without them. For the natural world, though, lights have changed the way that days and nights work. Some birds sing at unnatural hours in the presence of artificial light. Scientists have determined that long artificial days can affect migration schedules, as they allow for longer feeding times. Streetlights can confuse newly hatched sea turtles that rely on starlight reflecting off the waves to guide them from the beach to the ocean. They often head in the wrong direction. Turning on so many lights may not be necessary: researchers estimate that over-illumination wastes the equivalent of about 2 million barrels of oil per day."

We could prattle on for hundreds of pages explaining the nature of the pollution that threatens us these days. But let us "cut to the chase." Is there a pollution crisis on our horizon (as we've discovered with so may other factors)? And more to the point of this essay, is there any correlation between the timeframe in the scientists' minds and the timeline revealed in scripture? The following three sources (among dozens I could have cited) seem to think so.

Let us address water pollution first. *Pravda*, the venerable Russian news source, states, "Many respectable scientists all over the world believe that there is not too much time left to wait for the moment when fresh water, not oil, becomes most expensive substance on Earth. About 1.1 billion people living on the globe already suffer from a serious lack of fresh water. By 2025 this number will increase to three billion—over 40 percent of the entire population.

"Director of the Institute of Water Problems of the Russian Academy of Sciences, Viktor Danilov-Danilyan, believes that it is easy to predict the time when the global water crisis is going to hit the planet. The current growth of population automatically leads to the growing consumption of water. The amount of economically available water decreases. The crisis will thus occur during 2025-2030. About a half of world's population will face a serious shortage of water. Pollution of water reservoirs and countless violations of ecological norms can only intensify the reduction of water reserves on the planet." We see that timeframe referred to time and time again in the literature. The futurists foresee environmental catastrophe looming between 2025 and 2030. I hate to say I told you so, but my reading of scripture (i.e., the prophetic timeline I noticed over a decade ago) places the beginning of the Tribulation on November 14, 2026, running until October 8, 2033 (at which time Yahshua the Messiah will assume His rightful throne and begin the Earth's healing process. You can call God a liar if you want, and me a fool for digging into His word and pointing out the unpopular conclusions to which I've been led, but the fact remains that even without God's proactive wrath, the world is still going to be in big trouble—precisely when He told us it would be.

How about air pollution? *Qz.com* (March 12, 2013) reports on the plight of China, the nation currently laboring under the world's worst air pollution conundrum: "China's myriad plans to deal with pollution don't look so promising. In a research note today, Deutsche Bank analysts gloomily conclude that, barring extreme reforms, Chinese coal consumption and increased car ownership will push pollution levels 70% higher by 2025." You've seen the pictures of how bad it is now, right? My lungs hurt just thinking about it.

"Even if China's economy slowed to 5% growth each year, its annual coal consumption would still rise to 6 billion tons by 2022, up from the current 3.8 billion tons. Car ownership is expected to increase over the years to 400 million in 2030 from the current 90 million.... For China to meet its goal of reducing particulate matter to 35 micrograms per cubic meter by 2030, China will need to implement aggressive measures, the bank says, like reducing pollutants from coal-fired plants, cutting the number of cars on the road, and massively building up public transportation. Even then, the air pollution level would still be above the level deemed safe by the World Health Organization (25 micrograms per cubic meter)."

Alas for China: just when they are on the verge of reaching their goal of affluence and prosperity for their immense population (by standing upon the bloated corpse of American industry) the harsh reality of reaping profits without taking responsibility will fall over them like a shroud on their coffin. The lesson (one *nobody* seems to have learned) is that if you're going to rape a planet, make sure she doesn't have AIDS.

And leave it to the liberal American mainstream media to point out the lateness of the hour on the world's greenhouse-gas ticking time bomb. CBS News (May 27, 2009) reports: "The amount of heat-trapping carbon dioxide seeping into the atmosphere will increase by nearly 40 percent worldwide by 2030 if ways are not found to require mandatory emission reductions, a government report said Wednesday." *Mandatory?* Since this is a worldwide problem, would it not require a global government to implement? Solving it in the United States (whose heavy

industry is all but dead already) wouldn't make a dent in the issue—though of course it would make some politicians and powerbrokers very rich indeed). Lurking behind the assessment is a plea for a one-world government with total control over *everything*: cue the Antichrist (whose reign, not coincidentally, will begin in the spring of 2030).

"The Energy Information Administration [the U.S. government agency that issued the report] said world energy consumption is expected to grow by 44 percent over the next two decades as the global economy recovers and continues to expand. The biggest increases in energy use will come from economically developing countries such as China and India. Substantial growth is expected in the use of renewable energy sources such as hydropower, wind, and solar, the report said. But it also said overall growth in demand will require continued reliance on fossil fuels, especially oil and coal." It should be noted that hydroelectric power generation (like nuclear, which wasn't mentioned in the report) is an anathema to dyed-in-the-wool environmentalists. The reason dam building peaked in the U.S. in the 1960s is that they are invasive, disruptive, and terrain-altering. Animals (and sometimes people) are forced to find new habitats. But hydroelectric power is the only "renewable" energy source that can even remotely compete with fossil fuels on a cost-per-kilowatt basis. Wind and solar technologies (as well as pipedreams like geothermal, marine energy, and biofuels) have proven to be so inefficient, the only way to make them palatable to the energy-hungry populace seems to be to artificially drive the cost of competing fossil fuels up to comparable levels.

"As a result, the analysis predicted a steady increase in emissions of carbon dioxide, the greenhouse gas that scientists say threatens a serious warming of the Earth later this century. Between now and 2030... global carbon dioxide pollution is expected to increase by 39 percent. That translates to 33 billion metric tons in 2015 and 40 billion metric tons by 2030, compared to 29 billion metric tons in 2006, the report said." If you'll recall, climate scientists swear we're at the tipping point *now*, at almost 400 ppm. What will raising the CO<sub>2</sub> levels to this level do to us by 2030? I have no idea, but the timing is fraught with portent, at the very least. Something tells me, however, that by 2030, radioactive fallout from thermonuclear weapons will be considered a much more serious worldwide problem, but that's just the prophecy researcher in me spouting off again.

But one thing seems certain. If the trend continues at the present pace, by the fourth decade of the twenty-first century, man's pollution of our home planet the corruption of the air, the water, the soil, and our very souls—will have reached critical mass. The hands-on "wrath of God" won't be needed to explain the carnage: the very planet will have begun defending itself against us.

## Marine Oxygen Depletion

Water is, by definition, the H<sub>2</sub>O molecule. That is, it has plenty of oxygen in its very structure. But this oxygen can't be utilized by the living creatures that swim within it. They depend, rather, on free oxygen molecules (O<sub>2</sub>) dissolved in the water. A typical body of water can accommodate a finite amount of dissolved oxygen, expressed either as milligrams per liter, or as a percentage of maximum possible saturation. The maximum amount varies with salinity and the temperature of the water—ranging from 5.95 mg/L at 45°C (113°F) up to 14.6 mg/L at the freezing point. In other words, cold water can hold more dissolved oxygen than warm water can—which explains why the fishing is so good (relatively speaking) off the Alaskan coast or in the north Atlantic: all other things being equal, fish tend to congregate where there's plenty of oxygen.

The problem is that the amount of dissolved oxygen in our oceans, seas, lakes, and rivers can be reduced, either through natural or anthropogenic causes. A healthy aquatic environment should seldom dip below an 80% oxygen saturation level. Most fish can't live if the dissolved oxygen level sinks below 30% (a condition known as "hypoxia." If no  $O_2$  at all is present, the aquatic system is termed "anerobic" or "anoxic."

There are two primary (though closely related) causes for oxygen depletion. Manmade chemical pollution, of course, is a serious problem these days: industrial waste discharges, sewage, and farm runoff—pesticides and herbicides—all contribute the reduction of available O<sub>2</sub> in the waters downstream. But another sort of pollution also causes havoc. It's called eutrophication, and it's the result of too much plant-based nutrient material being present in the water. That may seem potentially beneficial at first glance (since growing things need nutrients), but it can very easily become *too much* of a good thing.

You see, when large quantities of nutrients like nitrogen- and phosphorus rich farm runoff or plant biomass accumulate and decay in the water, algae and phytoplankton blooms are encouraged. (Nitrogen sources include nitrates (the most common form), nitrites, ammonia, and organic nitrogen in the form of plant biomass. Phosphorus shows up primarily as phosphates and orthophosphates.) Up to a point, that's a good thing, for they're the foundation of the aquatic food chain. They actually increase oxygen saturation levels during daylight hours (when photosynthesis is taking place). But through respiration, they reduce dissolved oxygen saturation levels at night. It's sort of like breathing, and ideally, the process finds itself in equilibrium—one deep breath per day. But just as people can suffer from pneumonia or emphysema, our oceans and seas too can experience "shortness of breath." The trouble begins when phytoplankton cells die (instead of being eaten by more advanced creatures, as they were designed to do): they sink to the bottom and are decomposed by bacteria—a process that removes even more dissolved  $O_2$  from the water. If a great enough imbalance occurs, hypoxia results, killing fish as well as less mobile life forms like worms and clams.

Such runaway eutrophication can result in "dead zones" in and beyond the estuaries of large rivers. As I mentioned previously, one such oxygen-depleted dead zone the size of New Jersey recurs near the mouth of the Mississippi River every summer. Unfortunately, the nutrients in this scenario don't get very far. They tend to remain near the shoreline, in shallow water, where they eventually contribute to the oxygen-depleting bottom sediment. In the process, they are prevented from performing their intended role as the foundation of the food chain, being food for the creatures whose job is to become food for the larger fish in the open ocean. (That's a whole other subject, one we'll address shortly.) The ideal scenario would be to have a moderate level of nutrients spread evenly throughout the ocean. But that's no longer the reality. The trend today is oxygen-starved estuaries and nutrient-starved deep oceans.

Is there a solution? Theoretically, yes, but this is like so many of these doomsday scenarios we've been studying: though something *could* be done—though we know (in theory) *how* to reverse the trend—the forces of economics, demographics, and political inertia will conspire to ensure that nothing will be done to alleviate the situation before it's literally too late to do anything about it.

For what it's worth, *Wikipedia* offers the following analysis of what to do about aquatic oxygen depletion: "To combat hypoxia, it is essential to reduce the amount of land-derived nutrients reaching rivers in runoff. This can be done by improving sewage treatment and by reducing the amount of fertilizers leaching into the rivers. Alternately, this can be done by restoring natural environments along a river; marshes are particularly effective in reducing the amount of phosphorus and nitrogen (nutrients) in water. Other natural habitat-based solutions include restoration of shellfish populations, such as oysters. Oyster reefs remove nitrogen from the water column and filter out suspended solids, subsequently reducing the likelihood or extent of harmful algal blooms or anoxic conditions." As usual, these measures imply exercising either wisdom and restraint in our farming practices, showing diligence in nature preservation, throwing vast amounts of money at the problem, and/or getting rid of most of the people on this planet. So although these solutions *could* implemented, they won't be.

As an aside, I might note that God provided our world with a perfectly good mechanism for keeping our waters in decent balance, from a dissolved oxygen saturation point of view. He gave us shellfish—oysters, in particular—not for us to eat, but to remove nitrogen and other contaminants from the water. We were specifically instructed (in Leviticus 11:9-12) not to eat any animals from the

waters except those with fins and scales—in other word, true fish. But no! We must have our lobster thermidor, crab legs, clam chowder, scallops, and oysters on the half shell, mustn't we? Look: it doesn't matter if shellfish are tasty. *They're not food*. Their job is not to be eaten by people, but to make sure fish can breathe. When are we going to learn to trust Yahweh, to take Him at His word, even if we don't fully comprehend the ramifications of His Instructions?

NOAA (the National Oceanic and Atmospheric Administration) fleshes out the hypoxia problem for us: "Evidence associates oxygen depletion with changes in landscape use and nutrient management that result in nutrient enrichment of receiving waters. Increases in nutrient inputs clearly and directly relate to population density in watersheds draining to coastal areas, and population-driven increases in nutrient loading are causing problems in the form of oxygen depletion, habitat loss, fish kills and the frequency of harmful algal blooms." There's nothing really new here (except for the opaque jargon): the story is pretty much the same no matter whom you consult.

Where is the problem the worst? Apparently focusing on the western hemisphere, NOAA reports: "There are distinct regional differences in the occurrence of hypoxia. Most hypoxia occurs in the Mid-Atlantic, South Atlantic and Gulf of Mexico regions because of the volume of nutrients discharged and the physical factors that control the processing of the nutrients within the estuaries there. The Mid-Atlantic region is the most densely populated region, having greater than twice the number of people per square mile in any other region." Asia's hypoxia problems are no less severe, of course. Off the west coast of North America the current is much colder than on the Atlantic side, flowing as it does from north to south—automatically making hypoxia less of a problem.

"In addition to the sewage-based nutrients that accompany large population density, the significant agricultural activity in the Mid-Atlantic region provides nutrients through runoff. Atmospheric deposition of nitrogen (e.g., from fossil fuel combustion and forest fires) is also a large contributor of nutrients. In South Atlantic estuaries, the warmer climate leads to stratification in some estuaries and subsequent hypoxia." That is, the water separates into distinct layers on the basis of temperature, salinity, etc., and one stratum of the water column may become hypoxic, but not the others. "Agriculture and animal husbandry (hog farms) lead to high organic nutrient production that depletes dissolved oxygen. In the Gulf of Mexico estuaries, the occurrence of hypoxia is likely due to the warmer climate and high loads of nonpoint source nutrients." As I said, higher water temperatures naturally reduce water's ability to retain dissolved oxygen. Add to that the agricultural runoff from half a continent via the Mississippi River, and you've got a recipe for disaster. "Many coastal ecosystems have been subject to changes in nutrient inputs that reflect patterns of land use in their respective watersheds and airsheds. Growth in population, changes in land cover, and increases of fertilizer use and animal husbandry have resulted in two- to tenfold increases in the level of nutrient inputs during this century."

In other words, the trend is getting worse, not better. The UNEP (United Nations Environment Programme) agrees: "The global nitrogen input from rivers to the oceans is expected to continue to rise, and projections for 2030 show an increase of 14% compared to 1995.... Inorganic nitrogen fertilizers used in agriculture represent 60% of the total anthropogenic nitrogen released. The same study states that less than half of the nitrogen applied is taken up by plants—the rest is lost to the air, or dissolved in surface waters and groundwater."

So as long as we continue using current agribusiness models, the deck is stacked against the poor, defenseless fish. The more people we try to feed by farming with artificial (i.e., inorganic) fertilizers, the more oxygen-robbing nitrogen will find its way into the Gulf of Mexico, the Chesapeake Bay, and a hundred other offshore locations. "To sustain a growing global population the total amount of fertilizer use, will, according to UNEP (2005), have to increase from the present level of 140 million tons to 167-199 million tons per year by 2030." This will deplete the offshore waters of dissolved oxygen to an even greater extent than we're witnessing today. If the trend continues at the present pace, by the fourth decade of the twenty-first century, the seas will no longer be able to support a commercially viable fishing industry because the seas and oceans of the world will have become too depleted of dissolved oxygen to support large shoals of fish.

The oceans, it seems, are dying. Unfortunately, marine oxygen depletion is but one of many factors threatening our seas. Read on, if you dare...

## **Overfishing**

The prophetic scriptures (you know—the ones I've been insisting will come to a head with the ascension of the returning Messiah to the throne of earth on October 8, 2033—Tishri 15, the Feast of Tabernacles) speak of two separate events that will decimate life in the earth's seas: **"The second angel blew his trumpet, and something like a great mountain, burning with fire, was thrown into the sea, and a third of the sea became blood. A third of the living creatures in the sea died, and a third of the ships were destroyed." (Revelation 8:8-9) The second trumpet judgment (in context) has as its proximate cause the catastrophic eruption of a mid-ocean volcano (in the Atlantic Ocean, I'd surmise, since with its adjacent seas it comprises about "a third" of the world's surface waters). The logical candidate is the long-overdue**  Cumbre Vieja volcano, on Isla de La Palma in the Canary Islands—an unstable beast with the unique added threat of having the potential to split in two, dropping a chunk of rock twice the size of the Isle of Man into the Atlantic, and in the process causing the most devastating tsunami in the history of humanity. We're not told *how* a volcanic eruption could "turn the sea to blood." But (since this is the word of God) there's not a thing we could do to prevent it in any case.

And then we read, "The second angel poured out his bowl into the sea, and it became like the blood of a corpse, and every living thing died that was in the sea." (Revelation 16:3) We aren't given much of a hint in this case as to what the cause of the disaster is. But the "blood of a corpse" reference implies that perhaps the killer is water that has become, like a dead man's blood, devoid of usable oxygen, yet is still red in color. Sound familiar? It should. That's precisely the description of the dead zones that recur near the estuaries of the world's major rivers: red tides—algal blooms—that even now can stretch hundreds of miles across.

I'm not suggesting that humans will *directly* cause either of these two prophetic judgments—that our misuse of farmlands, pollutants, inorganic fertilizers, GMOs, oyster beds, or any of a hundred other factors will be single handedly responsible for the death of the world's oceans during the Tribulation as described in scripture. What I am suggesting is that by the time God's judgment comes (and it is coming), it will find the world's oceans in an already vulnerable and weakened condition. From all indications, Yahweh won't take a healthy, thriving marine ecosystem and *kill it* because He's angry at mankind (though that is His right, and it's certainly within His power). Rather, He will merely administer the *coup de grâce*, a mercy killing, so to speak, to a patient who is already terminally ill, so that He, the Author of life, might be free to start over with a clean, uncorrupted slate. In this regard, the flood of Noah as described in scripture—which was specifically said to be symbolic of the Last Days—should be sufficient to establish Yahweh's modus operandi. (And I can't help but reflect that the "sea" is a consistent scriptural metaphor for the gentile nations, as Israel is for the "land." Could it be that what will happen to life in the oceans is a metaphor for what Yahweh intends to do with (and for) the world's gentiles? Will He have to virtually *wipe out* the nations in order to breathe life back into them?)

We have already examined quite a few of the "diseases" that are infecting our world with increasing virulence today—things that are conspiring to bring our planet to its ecological knees. I'm afraid that many of them *are* the fault of man. When God told us to "fill the earth and subdue it" (Genesis 1:28) He *didn't* mean we were to abuse our home planet until it could no longer support us. Yes, we were to thankfully enjoy its bounty, appreciate its beauty, and utilize its resources. But we had no mandate to rape and plunder our way across the surface of the

globe, reaping without sowing, harvesting without planting, and burning through the gifts God gave us with no thought of future generations.

With all of that in mind, let us examine one more "problem" the world faces. Fish have been on the menu since the dawn of human history. But although our oceans are vast, it appears that fish may be on the verge of "practical extinction." That is, if we keep on "harvesting" more than the seas can reproduce, within a few decades, the seafood we eat may not exist in numbers sufficient to make the effort worthwhile anymore.

"Population collapse" is defined as when a given species has fallen to ten percent of its highest known numbers. And, as unlikely as it sounds at first blush, there are people—experts—who are predicting that there will be no seafood left worth catching by the middle of this century, due to overfishing—in particular, with one especially invasive fishing technique: trawling. A 2008 article posted on the *Animal Planet* website, authored by Julia Layton, states that, "According to researchers, there will be no seafood left to catch by 2048, except for jellyfish, which will thrive in the new, collapsed ecosystem.... Overall, what they see as the looming eradication of marine life would be the result of a lack of diversity in ocean ecosystems that comes from the overfishing of particular types of fish.

"To arrive at the conclusion that there will be no more fish by 2048, the scientists looked at a number of data sources, including global fishing data from the U.N. Food and Agriculture Organization, fishing data from all 64 major global marine ecosystems between 1950 and 2003, results from individual studies of marine areas by local scientists-including a study of the San Francisco Bay and its surrounding rivers—and data from 48 marine areas protected by conservation measures. What they found isn't pretty. In the case of the San Francisco Bay and its surrounding rivers, as reported in a San Francisco Chronicle article on November 2, scientists looked at population data going back a thousand years and discovered that '... more than 90 percent of the original water-dwelling species in those waters have lost at least half of their populations.' In addition, 30 percent of those species had collapsed at one point but recently came back into safer numbers. It seems that with loss of even a few species, the rest of the marine environment degrades more quickly. Diversity seems to play a key role in keeping marine ecosystems alive." It isn't hard to see why: eliminating species creates gaps in the food chain. If you kill off all the sardines, for example, lots of other fish are going to go hungry. Mature tuna can't survive on plankton. Small or young fish have completely different diets than their larger or older cousins do. It wouldn't matter if grown-up cod had plenty to eat if they had all starved to death when they were fingerlings.

"The research points to a number of practices as contributing to the vulnerable state of marine ecosystems worldwide. Overfishing and destructive fishing practices like trawling, where fishers drag a weighted net along the sea bed and just grab up everything down there, whether they can sell it or not, deplete some species to point of collapse. When certain species no longer play their role in the ecosystem, the imbalance makes the ecosystem more susceptible to harm, for example, in the form of an overgrowth of toxic life like algae blooms that deplete the oxygen content in the water. This depletion of oxygen content leaves other species of fish less likely to thrive...." We've already seen how agricultural runoff contributes to oxygen depletion in huge areas of open sea. Fish, of course, can often swim to friendlier waters, but the creatures they eat may not be so lucky.

"Whether the short track to fishlessness is accurate or not [and some researchers swear that it's not], the study's finding that nearly 30 percent of fish species are already collapsed due to overfishing is at the very least a warning signal. To prevent the end of marine life as we know it, the study suggests that world act quickly—in a couple of decades, they say, the damage will be too far gone to undo. Experts promote enacting global protections and increasing current conservation efforts while ocean life is still diverse enough for the ecosystems to recover." The disagreement, then, is not about whether or not the marine ecosphere is in trouble due to overfishing, but rather about whether man can (or will) be able to fix the problem in time to avert the death of the oceans. Swell.

Any way you analyze it, it's clear that man's intervention is at the heart of the problem. The seas are becoming less and less bountiful because we have been (1) adding chemicals to them that tend to contribute to deoxygenation, leading to eutrophication, and (2) overfishing: removing far more biomass from the seas than can be reproduced in the normal course of events, and in the process, diminishing the aquatic biodiversity so crucial to the ocean's health.

If you'd like to research this issue further, I'd highly recommend a website written by Debbie MacKenzie called *fisherycrisis.com*. In an essay entitled "The Marine Nutrient Cycle," she writes, "The interdependency of marine life is more circular than we seem to generally visualize it. We intuitively understand the dependence of the bigger things (fish) on the littler things (plankton) but maybe forget that the little stuff (plankton) equally depends on the presence of the big stuff (fish)—it's a nice, if complex, symbiosis: 'You feed me and I'll feed you.' That's why I characterize human entry and participation in the marine scene as being "parasitic." (We like to describe ourselves as a "top predator" in the sea, but all that we really do is kill and carry away fish.) The real "top predators" that naturally evolved in the sea have been replacing nutrients appropriately all along. Their approach 'works' and does not degrade or diminish the system. *Our* nutrient replacement program, on the other hand, leaves rather a lot to be desired."

MacKenzie points out that since "nutrients," those nitrogen based compounds that encourage algal blooms, are being pumped into the seas in such prodigious quantities, some scientists conclude that the oceans "can't" be experiencing nutrient shortages. But that, she says, is like saying a farmer "can't" be experiencing a drought because another farmer two states over is enduring a flood. The nutrients *aren*'t evenly distributed throughout the seas, nor can organic nitrogen-based runoff fertilizers be readily utilized by anything larger than phytoplankton. What makes algae grow in the Gulf of Mexico is of little use to cod out in the Grand Banks.

What overfishing robs from the picture is the biomass that would ordinarily feed the middle and top of the food chain. Think about it. What happens to the ocean's "top predators" when they die? Their carcasses sink to the bottom, feeding a myriad of smaller sea creatures. A dead whale can feed an entire ecosystem (in successive stages) for months, even years. But conversely, if entire shoals of cod or tuna or salmon are removed, the aquatic food chain will eventually be found to be missing a few links.

MacKenzie opines, "Due to mounting oxygen loss in ocean waters, I now conclude there is no safe way to implement any broad-scale diversion of human food waste usefully into the ocean ecosystem. Animal life surviving today will be unable to consume our food waste efficiently, so by default it will rot, which will only accelerate the current general degradation of the ocean environment. *The only thing we can do to enhance healing of the weakened web of sea animal life is to leave it alone. Stop fishing now.* A ton of living, swimming fish holds an immeasurably greater ecological value than a ton of broken down fish flesh components. All living sea animals naturally fertilize the sea itself, actively driving the removal of carbon dioxide from the atmosphere as they stimulate food production for their own benefit. Accepted theory has underestimated or missed this point.)... For myself, I still hold out hope that the ocean is only critically ill with some chance of recovery. However, there is precious little time to turn it around." (Italics mine.)

A MacKenzie essay entitled "The Dying Ocean" (a summary of her thesis presented in the no-longer-active online Magazine *Orato.com*, February 14, 2008) tells it like it is: "The ocean is dying, in the sense that animal life overall is losing strength and faltering. Centuries of human fishing is the major cause, not only of diminished human fisheries, but also of generalized breakdown patterns that are increasingly apparent today, from starving fish, whales and seabirds, to bursts of runaway growth of algae and bacteria, seen as 'red tides' and 'dead zones.'

"Our removal of so many active, living sea animals has unexpectedly impaired the very nutrient cycling engine of the marine ecosystem itself, because every living, moving sea creature always helped to stabilize and energize the whole system. The incredible bulk of marine animal life that existed a few centuries ago is now gone. And by its removal the ocean web itself has been injured, virtually gutted by fishing. According to accepted scientific theory, that was never supposed to happen. But it has, and the evidence is everywhere....

"The best way to describe the change in my lifetime is a decline in everything. There has been a major decline in large ocean animals, including fish; this much is fairly well known. However, it is important to realize that you can scale this observation down as well; there are now no large snails, there are no large mussels, there are not really even large seaweeds like there once were. Plants and animals that flourish now tend to be smaller, fine and fuzzy—lower energy things, that are more efficient and adapted for low nutrient feeding.

"Food production in the ocean has slowed overall, and this is reflected in the condition of the few large fish still surviving. All are unusually small and thin today. Tuna, swordfish, cod, you name it, that is the reality. I see a whole ocean system downshift; where I can watch plankton-feeding barnacles and mussels declining here in Nova Scotia, I see a parallel in the die-off of plankton-feeding corals in the tropics.

"What does this mean? It means there has been a slow-down in overall productivity and energy flow into the ocean, which means photosynthesis and carbon dioxide uptake by the ocean has also slowed over time....

"Fertilization of the ocean is definitely a major key to removing more carbon from the atmosphere—the ocean is the biggest thing on the planet capable of taking in carbon. Fertility of the ocean is crucial, and, although science has been slow to acknowledge it, living fish, whales, seals and seabirds all naturally speed up the fertility of the ocean, essentially by their very active movement. The web of marine animals has always been self-fertilizing!

"This realization shows us that the 'sea animal deficit' we have caused has inevitably caused a natural 'ocean fertility deficit'. If we now leave marine animals alone, the ocean animal web will have a natural tendency to repair itself; a natural tendency to rebuild and accelerate fertility on its own. Maximizing the living presence sea animals on the planet, including as many as possible of the larger types, will produce the best result, ocean-fertility wise. The safest way for humans to get the ocean to lock more carbon away will therefore be to stop all fishing, whaling and seal hunting. The idea is politically unpopular, to say the least, but it would help turn the ocean around.

"The fishing industry currently admits that it must deal with the direct impacts of fishing that people can see and understand. Fishermen will have to stop bottom-trawling, catching things that they aren't targeting, killing turtles and dolphins, birds and juvenile fish. However, what the industry cannot or will not square with is the mounting scientific evidence of damaging indirect effects of fishing: the energy draining impact on the ecosystem overall."

So once again, we see human population pressures driving industrial scale harvesting of the earth's resources, with little or no thought for replacing what we've taken. We've seen it with our use of the soil, with forests, with groundwater reserves, and now with the aquatic biosphere. What strikes me is that the crisis point in all of these areas (and so many more) is looming at roughly the same point in time. I mean, it's not like the groundwater / desertification issue came to a head in the middle ages, followed by soil nutrient depletion becoming a world crisis during the renaissance, pollution reaching critical mass during the industrial revolution, and overfishing becoming problematical only now. No, everything seems to be falling apart at roughly the same time—on the *same* schedule, mind you, that my study of Biblical prophecy led me to conclude was Yahweh's plan *ten years* before I began paying any serious attention to the health of the earth. So once again, I am compelled to say it: if the trend continues at the present pace, by the fourth decade of the twenty-first century, the world's already fragile oceans will prove unable to recover from any more adverse environmental pressure.

#### Undersea Methane

To be perfectly honest, I'm not sure if the issue of undersea methane plays into our "earth-is-toast" scenario or not. The fact is, the scientists who track such things can't seem to agree on what's going on, how dangerous it is, and when (if ever) the release of the gas into the seas and atmosphere could be expected to pose a problem for the planet. *None* of the people willing to voice their "expert" opinions on the subject are attuned to scripture, so the wisdom of man (such as it is) is all we've got to go on in any specific way. Worse, my observations about the timing of so many other "doomsday factors" seem to be confirmed in this case only by the most hysterical fringe element of the "earth-first" crowd—which is not to say they're wrong, necessarily. So be advised: I'm bringing up the subject of methane clathrate (a.k.a., methane hydrate, hydromethane, methane ice, fire ice, natural gas hydrate, or gas hydrate) only as food for thought, a springboard for further study. I'm merely endeavoring to "cover the bases."

The substance I'm talking about isn't ordinary methane gas deposits (CH<sub>4</sub> the primary component of natural gas). It is, rather, a naturally occurring form of methane—methane clathrate hydrate—in which methane is held as a solid within the crystalline structure of frozen water. It is the world's biggest (and largely untapped) reservoir of natural gas. The USGS has estimated that the total reserve of *undiscovered* methane hydrate ranges up to 157.8 *trillion* cubic feet. It looks just like ice, but it will actually burn (hence its moniker "fire ice"), separating the methane from the water components. Its chemical formula is  $(CH_4)_4(H_2O)_{23}$ ; that is, four methane molecules bonded to twenty-three of water. It will remain frozen (that is, maintain a solid state) in cold water (to 2°C—35.6°F) and has been found in Antarctic ice cores said to be 800,000 years old. Like water ice, methane clathrate will float, and if the ice component melts, the methane will be released into the atmosphere (or conversely, if the water temperature rises where the frozen clathrate deposit is held submerged, the methane will be released into the water). It is also extremely compact: one cubic meter of methane hydrate will yield 160 cubic meters of natural gas. Since methane is not only flammable but is a potent greenhouse gas—said to promote global warming (excuse me, *climate change*)—the very presence of so much of it is alarming to most climate scientists.

I first encountered methane clathrate when casting about for a logical reason for the death of a third of the world's oceans, a result of the second trumpet judgment. If I may reprise an observation from an earlier chapter in this book (#17, "Winners, Losers, and Wannabes")... "I was at a loss for a possible mechanism for marine death on this scale until the Deepwater Horizon oil rig disaster of April 20, 2010. It wasn't the escaping oil that caught my attention: God has built nature with an amazing capacity to heal itself, with or without man's intervention. (I know, such talk is considered blasphemy in environmental circles. I don't care.) But one of BP's failed attempts to solve the oil spill problem raised a largely overlooked issue that has the potential to provide a prophetic mechanism in which **"a third of the living creatures in the sea died."** (Revelation 8:9) In early May, BP deployed a 125-ton dome over the largest of the well's leaks at a depth of 5,000 feet, in hopes of capturing up to 85% of the escaping oil. The measure failed due to an unforeseen buildup of methane clathrate inside the dome—adding buoyancy and obstructing the flow of crude oil.

"It turns out that this hydrate of methane exists naturally in huge quantities in or near the continental shelves of the world's oceans. Normally, it's quite stable, existing in solid form (sometimes referred to as "burning ice") that is believed to have been formed *in situ* in ocean floor sediments by migration of microbially produced methane gas, rising from depth along geological faults. It is precipitated or crystallized into solid form upon contact with cold sea water, in depths down to about 2,000 meters. If for some reason the ocean temperature rises, or if the pressure drops, the form of the methane can change from its solid state to liquid, and then to gas. This fact, of course, has the environmental community all atwitter, first because there is twice as much carbon tied up in undersea methane clathrates than in all of the fossil fuels on earth, and second because there's no politically correct way to control it. (Horrors!) "So what might happen in our admittedly speculative nuclear war scenario in which somebody decides to eliminate the threat from his enemy's missile submarines by nuking the North Atlantic ocean? Along with the potential for underwater tectonic disaster, you'd now have the added factor of a couple of trillion cubic feet of methane under Greenland being instantly released from its frozen state—along with the "match" to light it up. Nuclear explosions are said to generate lots of heat—a million degrees Kelvin or so, roughly 1.8 million degrees Fahrenheit. (I have no idea how hot it might get if you set off 192 of them all at once.) Then add enough free methane in the water to keep the fire going for six or eight thousand miles. You tell me: is it possible to boil an entire ocean? Could anything survive such a holocaust? Naturally, I must assign this whole scenario a high Speculation Factor—SF8 or 9 (out of a possible 10). But that doesn't mean it *couldn't* happen."

All of that, of course, foresees a possible "trigger mechanism" that is based on what we see in scripture—the first trumpet judgment: nuclear war. But we're talking now about what can be expected to transpire even if Bible prophecy is a load of holy hogwash. If there is no sudden "trigger" to release the trapped methane, is it still a potential hazard in the short term—the next few decades? The opinions vary, but clearly, the entire "climate science" community is becoming increasingly attuned to the potential threat.

For example, Andrew C. Revkin wrote in the blog *DotEarth.com* (December, 2011) "...In its news release, the *National Science Foundation*, which helped underwrite the research, described the [methane clathrate] emissions as taking place 'at an alarming rate.' But are these emissions new, or simply newly observed? Does this mean that the Arctic system is coming unglued, and that a great outpouring of this heat-trapping gas is about to upend the global climate system?" The very fact that the question was asked at all should give us pause.

The danger, as climate scientists see it, is that as the oceans warm up, the methane now trapped in clathrate hydrates will be released, beginning a cascading, self-perpetuating global warming catastrophe. But *are* the oceans actually warming up to the point where methane could suddenly be released in unprecedented amounts, or is what they've recently noticed merely "business as usual" for the earth's processes? As Revkin puts it, "Are these emissions new, brought on by increasing temperature of bottom waters, or have they been there unnoticed for decades or longer? Based on our atmospheric observations, I suspect they have been there. We saw an increase in CH<sub>4</sub> growth rate in 2007 in the Arctic (likely from very warm temperatures in wetland regions increasing microbial CH<sub>4</sub> production), but it did not increase in 2008.

"Also, the difference in annually averaged CH<sub>4</sub> between Arctic and Antarctic latitudes is a sensitive indicator of changing CH<sub>4</sub> emissions at high northern

latitudes. The only persistent large change in this difference we've observed was from 1991 to 1992 when the economy of former Soviet Union collapsed. The difference has varied since then, but has not recovered." One year's data, it appears, does not a trend make.

"Dr. Dlugokencky [one of the top federal scientists tracking methane trends] has told me previously that, for the moment, it appears that methane releases from warming Arctic soils and other sources constitute a potentially amplifying warming influence, in which warming releases more gases that contribute to further warming. Such a 'positive feedback' adds to the logic for working to limit human-driven warming, many climate scientists say." At this point it might be appropriate to reiterate what we've observed in the past few studies: trading in your SUV for a Prius isn't going to be remotely enough. The only ways to cut down significantly on anthropogenic carbon emissions (without taking human civilization back to the 18<sup>th</sup> century) would be to halt *all* deforestation in the tropics, and cease all commercial fishing worldwide-immediately. And we all know neither of those things is going to happen, given the entrenched economic and political realities. It's the epitome of irony: if atheistic secular humanist "environmentalists" want to see the planet saved, they'd better pray for the kind of upheaval prophesied in Yahweh's scriptures, in which the vast majority of humans are predicted to kill each other off in genocidal insanity, leaving the world alone to heal itself under the care of the same wise God who created it in the first place.

Revkin continues: "But Dr. Dlugokencky, like quite a few other scientists assessing Arctic warming, sees no evidence for a 'tipping point' beyond which this cascades uncontrollably. That doesn't mean this is impossible, just that there's no evidence pointing to such a prospect." How reassuring.

"Martin Heimann, who wrote an accompanying analysis in *Science* and is a researcher at Germany's Max Planck Institute for Biogeochemistry, sent this cautionary note: 'Indeed, at this point, it is impossible to tell whether these Arctic emissions are directly caused by recent Arctic warming or whether they have been persistent over at least much of the Holocene. This can only be answered from longer time series; complemented, maybe, by borehole measurements in this shelf permafrost. Therefore, these new emission estimates do not allow yet a quantification of the permafrost methane-climate feedback. Personally, I *do* believe that this feedback exists, but it doubt very much that it is "catastrophic" with large emissions over relatively short time scales (20-50 years) as implied by the "tipping point" metaphor. Even under strong warming the melting of permafrost takes time and the release of greenhouse gases will be quite gradual and will manifest itself as increased leakages." In other words, he too thinks the world is doomed—just not this week.

But as I said, consensus on the danger posed by methane clathrates in oceans that are warming (if they are) is non-existent. We've heard several voices from the "Don't Panic" school of thought. In the interests of airing all points of view, I now call to the witness stand the expert representing the "*We're All Doomed*" camp, climate scientist Guy McPherson. In an essay he wrote in October, 2009 entitled (hysterically enough) *Apocalypse or Extinction,* he reported, "Last month, the United Nations Environment Programme concluded we're committed to an increase of  $3.5^{\circ}$ C by 2100, thus leaving little doubt about human extinction by then." He's so coy, so subtle; I just love that.

"Last week, Chris West of the University of Oxford's UK Climate Impacts Programme indicated we can kiss goodbye 2°C as a target: four is the new two, and it's coming by mid-century. In a typical disconnect from reality, the latest scenarios do not include potential tipping points such as the release of carbon from northern permafrost or the melting of undersea methane hydrates. But even the mainstream media [who are presumed to be clueless pawns] know a 4°C increase spells the end of the line for our species." Did you catch that? He calculates that we're all going to die from the effects of global warming, not by the end of this century, but by about 2050—and that "late date" is arrived at only if you ignore one of the most potentially prodigious  $CO_2$  sources on the planet undersea methane.

McPherson continues: "Giving the response I've come to expect from politicians, the Obama administration calls any attempt to reduce emissions 'not grounded in political reality.' Have you noticed a set of patterns? Each assessment is quickly eclipsed by another, fundamentally more dire set of scenarios. Every scenario is far too optimistic because each is based on conservative approaches to scenario development. And every bit of dire news is met by the same political response." That response, alas, is the bane of western civilization: *We will not do anything that isn't calculated to enhance our personal political influence and increase our authority; if we try to kill off an industry in the name of the environment (like coal, for instance) it will only be because those who depend upon it (whether producers or consumers) aren't deemed a large enough voting block to unseat us from our lofty positions of power and pride.* 

"Is there any doubt we will try to kill every species on the planet, including our own, by the middle of this century?" Honestly, Guy, I don't thing anybody is really *trying* to wipe out life on earth—though Satan definitely is. It's mostly just a matter of billions of people attempting to live their lives without reverence for or deference to—their Creator. "At this point, it is absolutely necessary, but probably not sufficient, to bring down the industrial economy. It's no longer merely the lives of your grandchildren we're talking about. Depending on your age, it's the lives of your children or you. If you're 60 or younger, it's you." That's the typical "progressive" solution to this conundrum—blow civilization back to the seventh century—the "good old days." No industry, no electricity, no food you don't grow or kill yourselves, no transportation, no information. If that sounds idyllic to you, you need to study your history a little more closely. Human nature doesn't need carbon-dependent technology to be utterly corrupt.

McPherson writes, "In 2002, as I edited a book about global climate change, I concluded we had set events in motion that would cause our own extinction, probably by 2030." Interesting date, from a prophetic perspective. "I mourned for months, to the bewilderment of the three people who noticed. About five years ago, I was elated to learn about a hail-Mary pass that just might allow our persistence for a few more generations: Peak oil and its economic consequences might bring the industrial economy to an overdue close, just in time." Sorry, dude. With the advent of fracking, petrochemicals are at the dawn of a whole new age. Only the locations have changed: as the "easy" oil of the Middle East wanes, the new players—the nations with the huge untapped energy reserves—will prove to be America, Canada, and Israel, much to the world's chagrin. You may resume mourning now.

"If we abandon the industrial culture of death, we might persist until your children are old enough to die a "normal" death. But the odds are long and the time short. Barack Obama epitomizes the actions of every politician in the world by ensuring, with every political act, a miserable future and insufferable death for his wife and children." I don't know why McPherson picks on Mr. Obama like this. After all, the 44<sup>th</sup> president did more than *any* of his predecessors to fulfill the liberal-progressive dream of "bringing down the industrial economy" of the United States. "Now I mourn because the solution is right in front of us, yet we run from it. We fail to recognize our salvation for what it is, believing it to be dystopia instead of utopia. Are we waiting for the last human on the planet to start the crusade?"

Such is the inevitable pessimism (or is it realism?) of those who are honest about the impending doom of planet Earth but at the same time remain clueless about God's prophetic "exit strategy" for the ecosphere He created here. McPherson is bravely willing to jettison the liberals' vision of "utopia," realizing that without the God he refuses to acknowledge, dystopia—a society characterized by ubiquitous human misery, squalor, oppression, disease, and overcrowding—is the only hope for the continued survival of earth's biosphere. In other words, he believes man must live like an animal if *anything* is to survive on this planet for more than a few more decades.

Ironically, his gloomy title for this essay, *Apocalypse or Extinction*, bears within it the seeds of humanity's rebirth, although he doesn't seem to realize it. McPherson assumes that *extinction* is humanity's certain and well-deserved fate,

but Yahweh speaks instead of Apocalypse-which means "revelation" more than it does the modern caricature of a "doomsday war" that (according to scripture) will culminate in the revealing of the Messiah. The whole point of the Bible, from Genesis to Revelation, is the story of Yahweh's plan for the rescue and redemption of a fallen race of men. But let's face it: apart from His intervention, we are a race whose demise is apparently just as Guy McPherson pictures it: a sure thing, and only decades away—or at best capable of a few centuries' reprieve if our entire race can be reduced to living like brute beasts. In the end, McPherson envisions the only hope for mankind as a return to his evolutionary idealsurvival of the fittest, the strong killing and devouring the weak, with man a mere pawn of nature, not its steward. He would vehemently disagree with Alfred Lord Tennyson, who acknowledged that Man... "Who trusted God was love indeed / And love Creation's final law / Tho' Nature, red in tooth and claw / With ravin, shriek'd against his creed." (In Memoriam, 1850) In the mind of the logical liberal, the only way to save man from himself is to allow his "god," Nature, to rapaciously seize and devour him as prey. Yahweh, however, has other plans.

How can one remain joyful in the face of such grim prospects—dying seas, corrupted air, and barren lands? It's because Yahweh (who does not lie) speaks of a holy city where righteousness and peace reign, where the river of the water of life flows, with the tree of life bearing fruit, and whose leaves heal the nations. He promises to wipe away our tears, remove the curse of sin, turn our swords into plowshares, and dwell among us as our God. *Extinction* is for people with no hope; I am looking forward, rather, to *Apocalypse*.

The dangers of these various environmental "swords of Damocles" hanging over our heads tend to precipitate three competing reactions, depending upon our varying philosophies. The godless either try to use the data as a springboard for self-serving political activism, or they adopt a fatalistic posture: eat, drink, and be merry, for tomorrow we die. Meanwhile, Christians and the politically conservative (groups that overlap to some extent, but are by no means coterminous) tend to ridicule the data, along with (or perhaps *because of*) the political "hay" the liberals are trying to make while the sun shines. My position, however, is that *all three reactions are wrong*.

For example, there is no question that CO<sub>2</sub> concentrations are building in the atmosphere. We have discussed many of the reasons for this phenomenon, and the prevailing theories concerning the disasters that could result. The environazis therefore warned us years ago that by the summer of 2013, the polar ice caps would have completely melted. What happened? By September of 2013, the north polar icecap had *increased* in size by *a million square miles*, much to the glee of the naysayers. The climate-change enthusiasts were left scratching their heads, or doubling down on their predictions of doom, despite the evidence. God,

meanwhile, (who's got His own agenda and His own timetable) is "adjusting" the climate of the earth by controlling magnetic activity on the sun: just when we were supposed to be going into an eleven-year sunspot peak, these harbingers of heat were nowhere to be found. (The "low-information" group remains blissfully unaware of the whole controversy, of course.)

Once again, I find myself out of step with virtually everybody. I believe that: (1) We should *not* purposely remain clueless to the issues and challenges that confront our world. Ignorance is no defense against anything. (2) We should *not* presume that mankind is wise enough, powerful enough, advanced enough, or beneficent enough to solve the environmental problems the Earth faces without honoring the God who made the place for us to live on. And (3) we should *not* automatically assume that the world's ecological problems don't exist, simply because the scientific and political elite are trying to make a quick buck at our expense by "solving" them. Rather, we should be pondering the big picture—the plan of God, the plight of man, and our own utter inability to save ourselves. At some level, these environmental crises are *real*. The only things that are bogus are man's efforts to head off disaster.

Perhaps the whole thing should be taken as a parable of sorts, teaching us something about our own spiritual condition. Anyone who thinks about it (though granted, not many do) will readily conclude that we—the human race—are in need of salvation, for we are fallen, sinful creatures. Even if we don't "believe in God," we still find ourselves doing things we somehow *know* are "wrong." The solution is not to ignore the problem, numbing our consciences with the pursuit of pleasure or the distraction of merely trying to survive our busy days. Neither is the answer to impose manmade solutions (that is, "religion"—the process of man defining God) upon our fellows. If God had wanted us to "think" our way into His presence, He would not have simply told us how to get there. Nor can we get to where we need to be by mocking or ridiculing those we think are "less enlightened" than ourselves. In spiritual matters (which are the only ones that count, in the long run) we would be wise to use the same method—the *only* method—that works with the ecology of our planet: pay attention to what Yahweh said to do.

It's ironic that most of the information that serves to warn us about impending catastrophe in the earth invariably comes from the same people who would scoff at any notion of divine vengeance, of God's coming judgment. Frankly, I just *hate* getting my data exclusively from people who think the universe, our galaxy, solar system, planet, and life itself were all just the fortuitous outcome of a remarkable string of incredibly unlikely accidents. But the *only* people making their living tracking "climate change" (and what might cause it) get their funding by expressing the opinion that the multitudes of miracles that were responsible for

getting us here, balanced on a razor's edge of infinitely receding improbability, were not performed by a wise and powerful "Creator-God," but rather by blind, stupid, undirected chance—a "creator" with an IQ of zero. A scientist working in academia today has to be *extremely* secure in his position to even admit the *possibility* of God in a public forum. It happens, but it's incredibly rare.

My point is that there is enormous pressure for scientists these days to disregard the most obvious and fundamental "fact" of all—that a Being of immense intelligence and foresight created and sustains life. In what universe would it be conceivable that such a Supreme Being would not be aware of the stresses we have put on the world? Yes, we humans are probably "clever" enough to figure out how to destroy all life on earth. God's human manifestation, Yahshua the Messiah, as much as told us so when He said, speaking of the times we are discussing in these pages, "**If those days had not been cut short**, **no human being would be saved. But for the sake of the elect those days will be cut short**." (Matthew 24:22) Christ was hinting that the world will not be allowed to whimper to its sad, inevitable end, a victim of its own inhabitants' pride, greed, and lack of reverence for their Creator. Before any of these "risk factors" we've been discussing are allowed to kill us all off, Yahweh will (once again) intervene to save us from ourselves.

## Mass Animal Die-offs

Consider these news headlines:

70,000 sheep and cattle killed by snow in Bolivia... 990,981 birds killed by Avian Flu in Bhaktapur, Nepal... Over 1,500 cattle freeze to death in southern Paraguay... Five dead whales found beached along southeast coast of Brazil... Millions of fish die suddenly in a reservoir in Henan, China... Mass die-off of Pigeons due to disease in Dnepropetrovsk, Ukraine... 250,000 Alpacas dead from freezing weather in Puno, Peru... Tons of dead fish from the Baltic Sea wash up on beaches in Germany... 1,000 dead fish found in a stream in La Bresse, France... 10,000 dead salmon found scattered along Lake Koocanusa in Montana... Mass fish kill washes up along the shores of a river in Kharkiv, Ukraine... Thousands of ducks dying "due to disease" in Klamath Basin, Oregon... Thousands of bees found dead after mosquito spraying in York County, Virginia... 100+ elk found dead on ranch near Las Vegas, Nevada... Thousands of fish turn up dead in a pond off Iowa river... Thousands of dead fish wash ashore in Nienhagen, Germany... 200,000 pounds of fish have died in a reservoir in Yiyang, China... 100% of oyster beds dead in St. Lucie River, Florida... Another mass die off of fish washes up in Karachi, Pakistan... Tens of thousands of fish found dead in fish farms in Nong Khai, Thailand... Three more dolphins

wash up dead off Jersey coast... Mass mortality of poultry due to third outbreak of bird flu in Ferrara, Italy... Mysterious die off of fish and animals along a river in Ouled Rabah, Algeria... Thousands of dead fish wash up in a lake in Bolu, Turkey... Pigeons are dying *en mass* due to disease in Kiev, Ukraine... 900 fish die due to lack of oxygen in a lake in Hellum, Netherlands... Ten tons of dead fish discovered in a lake in Rio, Brazil....

It would be alarming if these headlines about mass animal die-offs covered an entire decade. Even more so for one year. The carnage would be truly horrifying if that news covered but a single month. But it doesn't. That list reports the extinction events of *only one week*—the last week of August, 2013 (chosen quite at random, I'm afraid). (Thanks to *end-times-prophecy.org* for compiling the list, by the way.) And those are only the die-offs that made the news; there could be many more. The media reports whatever facts it can: the numbers, the species, the locations, and sometimes (if they can be determined), the immediate causes. (Those "causes," of course, are occasionally enough to make a dyed-in-the-wool earth-worshiper break out in a cold sweat: it has been determined that at least 95 endangered eagles have been killed by renewable-energy-generating wind turbines since 1995—65 of them within the past five years. Saving the planet can be *so* frustrating.)

No one seems to know why so many animals, of such a wide variety, are dying in such huge numbers all over the world in the last few years: birds (both wild and domesticated), bees, bats, fish (salt water and fresh, wild and farmraised), marine mammals (whales, dolphins, porpoises, manatees, seals, and sea lions), a wide variety of other ocean dwellers (starfish, oysters, clams, eels, turtles, stingrays, sharks, lobsters, crabs, krill, shrimp, squid) large quadrupeds (elks, antelopes, deer, goats, sheep, cattle, horses, alpacas, pigs, elephants, water buffaloes), and the list goes on.

There is no single answer, no sole all-encompassing identifiable root cause, for the hundreds of mass die-off events that are reported every year. The researchers and reporters seem content to scratch their heads and take each episode as a separate, stand-alone phenomenon. A flock of blackbirds will suddenly take wing in the middle of the night for no apparent reason, fly around for a while, and then suicidally dive-bomb the earth. The necropsies reveal no environmental cause of death, other than the obvious: blunt force trauma caused by high speed collisions with the ground. An entire pod of whales will beach themselves for no reason any human can discern. Hundreds of thousands of dead fish float to the surface of three different lakes—on three separate continents. A pile of dead honeybees 60,000 strong is discovered, but the cause of their demise remains undetermined. Even when the cause is known—for example, millions of chickens and ducks dying (or being preemptively slaughtered) because of bird flu

in China—the cause of the next die-off, of the next species, in the next country, is completely different. It's almost as if the animal world has lost the will to live. Do they sense something we don't?

Well over half of the news articles report massive fish die-offs. Having studied the symbology of living things as presented in scripture (see the resulting thesis: *The Torah Code*, elsewhere on this website) I was compelled to figure out what Yahweh is thinking about when He speaks of "fish." Introducing that chapter, I wrote, "On the theory that God never tells us anything by accident or does anything on a pointless whim, it would seem that fish in scripture represent Yahweh's 'quarry,' those He would like to 'reel in'—we who are, if you catch my drift, the whole reason He 'bought the boat' in the first place. Like any fisherman, He knows from the outset that He's not going to 'catch' all of us, and that some who end up in His nets are dead—or worse, poisonous [see Matthew 13:47-50 for context]. But there's a sea of humanity out there who are lost and vulnerable. So although you can't bend this metaphor too far without breaking it, God asks us to pay attention to what He said about fish."

If my take on the "fish" symbol in scripture is correct, the stresses we see on the world's fish population in these last days—from a plethora of causes—seem to comprise a prophecy of sorts. Note first that a fish's "job" is twofold: to procreate, and then to be eaten by something higher up the food chain. (The top predators are destined to die as well, but their corpses nourish the *bottom* of the food chain—an elegant, even poetic, arrangement.) Some fish, of course, are there to feed people (see Leviticus 11:9-12, Luke 11:11).

So these mass die-offs of fish can be seen as a picture—a preview—of something about which we're blatantly warned elsewhere in prophetic scripture. After the rapture (the harvest of the "good" fish mentioned in Matthew 13), and especially during the Tribulation proper, many of those souls whom God desired to "catch up" in His net of love will die before they ever get close to Him. It's not that they will all be scooped up in the nets of the adversary (though many will). But the sea of moral pollution through which they must swim, the dearth of spiritual nutrients in the water, and the absence of available oxygen (read: the Holy Spirit), will all conspire to make *pointless death* the "new normal" in the days following the rapture. Most of these "fish," the souls left behind, will never fulfill their intended role in life—to pass their life (in the spiritual sense) on to the next generation—something that comprises the central instruction of the Great Commission—or to provide nourishment (again, in the spiritual sense—godly wisdom) to anyone in their own generation. Their lives, to put it bluntly, will be wasted. Not only will they not do what they were put here on earth to accomplish, their rotting corpses will provide the characteristic scent of the Tribulation: eau *d'decomp*, the pungent odor of wasted life. By the time the Tribulation has run its

course (a short but lethal seven years), most of the "fish" in the sea (a common scriptural metaphor for the gentile world) will be dead.

You may conclude that I'm merely being hysterical—about both the fish in the sea and the lost people they (to my mind) represent. The prophetic stuff will vindicate itself soon enough (or not), though since it's yet future, there's no way to verify it. But the general demise of the world's fish—and indeed, the entire aquatic biosphere—is (as we have seen) becoming a *fait accompli* before our very eyes. We've already examined several villains: overfishing, pollution, and the deoxygenation / eutrophication of huge swaths of the ocean. But there's one factor affecting the world's largest ocean that nobody saw coming: nuclear radiation.

I'm speaking, of course, of the aftermath of the Tōhoku earthquake and tsunami on March 11, 2011: the meltdown of Japan's Fukushima nuclear power facility, an event with ongoing and ever-widening environmental consequences. Fukushima is generally regarded to be the *second*-worst nuclear accident in history (after Chernobyl) but time and circumstances may conspire to give Japan's disaster the unenvied "number one" spot. What's different is that the Fukushima reactor was cooled with Pacific Ocean water, and radioactive waste water is *still* (two and a half years later, as I'm writing this) being vented into the open sea. If it isn't killing the fish outright, it's doing something even worse causing harmful genetic mutations on an industrial scale, mutations that could be passed on to successive generations of sea life, should the fish be "lucky" enough to live long enough to procreate.

Such is the premise put forth in an op-ed piece by Gary Stamper on the website *CollapsingIntoConsciousness.com*. It's entitled, apocalyptically enough, "At the Very Least, Your Days of Eating Pacific Ocean Fish Are Over." Stamper writes, "The heart-breaking news from Fukushima just keeps getting worse... *a lot* worse... it is, quite simply, an out-of-control flow of death and destruction. Tepco [Tokyo Electric Power Company] is finally admitting that radiation has been leaking to the Pacific Ocean all along.

Stamper takes this personally, as perhaps we all should: "I find myself moving between the emotions of sorrow and anger. It now appears that anywhere from 300 to possibly over 450 tons of contaminated water that contains radioactive iodine, cesium, and strontium-89 and 90, is flooding into the Pacific Ocean from the Fukushima Daichi site *every day*. To give you an idea of how bad that actually is, Japanese experts estimate Fukushima's fallout at 20-30 times higher than the Hiroshima and Nagasaki nuclear bombings in 1945.

"There's a lot you're not being told. Oh, the information is out there, but you have to dig pretty deep to find it, and you won't find it on the corporate-owned evening news." One exception? "An MSNBC article in April of 2012 reported

that seals and polar bears were found to have 'external maladies' that consisted of fur loss and open sores, obvious signs of radiation burns from the Fukushima meltdown, despite the conclusions of the article. Fukushima radiation appears to be causing an epidemic of dead and starving Sea Lions in California and the FDA has refused to test for radiation." A skeptic might conclude that official government agencies like the FDA know where their funding comes from—and they're not about to bite the hand that feeds them.

The article goes on to cite the *Huffington Post* (5/9/11), saying, "The reactors used 'dirty fuel,' a combination of plutonium and uranium (MOX), which means we can never return to this place again. This comes from a Russian nuclear physicist who is an expert on the kinds of gasses being released at Fukushima." It predicts that "almost a third more US West Coast newborns may face thyroid problems after Fukushima nuclear disaster," something that only time will tell. "Contaminated water from Fukushima reactors could double radioactivity levels of US coastal waters in 5 years." Just don't expect to see it on the evening news.

Stamper asks, "What's going on with the Pacific Ocean food chain?... Researchers from the Japan Agency for Marine Earth Science and Technology reported in early 2012 that they have detected radioactive cesium from the Fukushima No. 1 nuclear plant in plankton collected from all 10 points in the Pacific they checked, with the highest levels at around 25 degrees north latitude and 150 degrees west longitude. [That's roughly 700 miles north-north*east* of Hawaii.] Plankton, and the radiation they contain, moves right up the food chain through fish, whales, seals, etc., and when larger fish eat smaller fish." German computer models foresee Cesium-137 contamination from Fukushima reaching the West Coast of the United States by early 2014. Eventually, the entire Pacific Ocean will be affected. This will not remain a "localized" disaster for long. By the way, the half life of Cesium-137 is thirty years.

"Scientists previously reported higher-than-expected concentrations of radiation in fish off Japan. Now there are calls for testing of seafood sold in the U.S. Although contaminated air, rainfall and even radioactive debris from Japan have drifted toward the U.S. West Coast since the disaster occurred  $2\frac{1}{2}$  years ago, scientists are unclear about how the contaminated waters could impact the health of Americans.... Nuclear experts are calling on the U.S. government to test West Coast waters and Pacific seafood sold in the U.S. in the wake of Japan's alarming admission about an ongoing radiation leak, something the EPA and the FDA have so far refused to do, as they are only testing imported fish, not wild-caught. *Why?*"

Good question, Gary. Our government, it appears, is concerned only with regulating us, not protecting us—and not even *warning* us. Such things are apparently bad for business. So Stamper opines, "The only way to protect your

children and grandchildren is by *not eating seafood* from the Pacific Ocean until we have better information. Information posted at the website of The Department of Nuclear Engineering at the University of California recommends *not buying any fish from the Pacific Ocean* or western states, including Baja." I find it eerie how the advice parallels that of researcher Debbie McKenzie, quoted above, though offered for entirely different reasons. Humanity, it would seem, has worn out its welcome in the world's oceans, at least for the next century or so.

Since the FDA refuses to do their job, Stamper has prepared this short list of "What you haven't been told about fish contamination" for our edification:

1. Tissue samples taken from 15 bluefin caught in August, five months after the meltdowns at Fukushima Daiichi *all* contained reactor byproducts cesium-134 and cesium-137.

2. The 15 fish tested were only exposed to radiation for a short time. But bluefin arriving in California now will have been exposed to the Fukushima radiation for much longer.

3. Unlike some other compounds, radioactive cesium does not quickly sink to the sea bottom but remains dispersed in the water column, from the surface to the ocean floor. Fish can swim right through it, ingesting it through their gills, by taking in seawater or by eating organisms that have already taken it in.

4. The overwhelming scientific consensus is that there is no safe level of radiation ... and radiation consumed and taken into the body is much more dangerous than background radiation. (*Washington's Blog*)

5. Scientists tagged a bluefin tuna and found that it crossed between Japan and the West Coast three times in 600 days: All Pacific migratory fish are likely Fukushima-contaminated. (*The Telegraph*)

6. Why have contaminated Alaskan halibut been found even though halibut don't migrate? The [airborne] cesium-134 contamination from radioactive plumes doesn't just fall on land [but also onto the ocean's surface].

7. A study shows Fukushima nuclear pollution becoming more concentrated as it approaches the U.S. West Coast—the plume crosses the ocean in a nearly straight line toward North America, and appears to stay together with little dispersion. (*enenews.com*)

8. Pacific herring in Canada [were found] bleeding from eyeballs, faces, fins, tails. 'I've never seen fish looking this bad... All 100 examined were bloody.' Officials were informed of the hemorrhaging soon after 3/11, but the government is ignoring problem. (*enenews.com*)

9. Unprecedented: Sockeye salmon are at dire historic low on Canada's Pacific coast. 'We think something happened in the ocean'... 'The elders have

never seen anything like this at all.' Alaska and Russia are also affected. (*enenews.com*)

10. Fukushima Daiichi radioactive water problems seem 'uncontainable.' [They are] believed to be wreaking environmental havoc upon Pacific Ocean. (*Japan Times*)

11. Crisis deepening at Fukushima nuclear plant; Upgraded to 'Level 3 Serious Incident.' Represents a 100-fold increase in 'severity of a radiological release.' Tepco says highly radioactive leakage continues, but the source is unknown. (*Reuters*)

Stamper concludes, "It's more than obvious that Tepco officials have no idea what they're doing, and the big question is why aren't world governments jumping in to contain what's going on? Meanwhile, the Pacific Ocean may very well be dying." Mr. Stamper, for all his correct (though alarming) observations, has made one critically errant assumption. He thinks man should be able to fix this. But man is a morally corrupt species, and not nearly as smart as we think we are: we are incapable of saving ourselves (though we seem to be pretty proficient at getting ourselves into trouble, and we're positively *brilliant* at passing blame and covering up the truth).

*BeforeItsNews.com* seems to agree with me. On August 22, 2013, they posted this: "From the first day onwards, the U.S. government has massively underplayed the scale of the [Fukushima] disaster— and its effect in particular on North America itself. In the text of stenography [a reference to incriminating documents obtained through the Freedom of Information Act], there are repeated references to 'play down the level of fallout,' 'our line should be there's no cause for alarm' and so forth. But the bottom line is that somewhere in the region of 1.3 million Americans will be dead as a direct cause of Fukushima by 2030."

Well, they might be dead by then if they live long enough to fall victim to Fukushima's slow radiation poisoning. But if you'll recall, the scriptural timeline seems to call for global thermonuclear war (the first Trumpet Judgment) in late 2028 or early 2029. With one quarter of the Earth's population dead as a result of the war and its attendant woes, "1.3 million Americans" won't even make a dent in the total carnage. The secular-humanist elites insist on thinking of humanity as nothing more than a race of *really smart animals*. If you accept their definition, I guess the Tribulation (during the third and fourth decades of the twenty-first century), will be the cause of the greatest "mass animal die-off" of all. The world doesn't want to hear it, but I'll say it (again) anyway: our only hope is life in Yahweh. That has always been the case, but in these last days, it is becoming so obvious, even a scientist can see it.

# Extinction Threats—Disappearance of Wildlife and their Habitats

Man was given his marching orders in the Garden of Eden: "Then God said, 'Let us make man in our image, after our likeness. And let them have dominion over the fish of the sea and over the birds of the heavens and over the livestock and over all the earth and over every creeping thing that creeps on the earth.'... And God blessed [Adam and Eve]. And God said to them, 'Be fruitful and multiply and fill the earth and subdue it and have dominion over the fish of the sea and over the birds of the heavens and over every living thing that moves on the earth." (Genesis 1:26, 28) Having been created "in the image of God" implied that we (mankind) were to care for God's creation as He did. Yahweh provided each species with food, an appropriate place to live, the tools to make use of one's environment (whether fangs and claws, horns and hoofs for defense, a shell to hide in, or wings with which to make an escape), natural balance in numbers, and instincts informing each kind of animal how to best make use of God's gifts. That is, Yahweh's approach toward the natural realm He had created was to foster life, health, fecundity, and balance. Man's job, then, was to figure out ways to reflect and promote these divine attitudes. So when God told Adam to "subdue the earth and have dominion over its creatures," He wasn't authorizing him to go out and kill everything he could, out of a misplaced sense of greed, fear, or arrogance. Just because man was to be the "top" species on this planet—uniquely invested with the privilege of making moral choices—God never intended for him to work toward the goal of becoming the only species. As God created and sustained life, man was to preserve it to the best of his ability.

Adam's "day job" is revealing. He was tasked by God to get to know each and every kind of animal He had created, giving them the names by which they would be known. **"So out of the ground Yahweh, God, formed every beast of the field and every bird of the heavens...."** Note that the animals had all been made of the same basic "raw material" the man himself was made of—the elements of the earth. And if it's not too eisegetical, perhaps a sideways confirmation of our common DNA structure can be implied from this as well. **"And [He] brought them to the man to see what he would call them. And whatever the man called every living creature, that was its name. The man gave names to all livestock and to the birds of the heavens and to every beast of the field." (Genesis 2:19-20) Thus "subduing" and "having dominion over" the animals of the earth had less to do with controlling them than it did understanding them. Adam was to be a steward, not a subjugator—a caretaker, not a conqueror.** 

In the interests of full disclosure, I must note that by the time of the flood of Noah, the animals who had once been so docile and trusting under Adam's caring hand had learned (the hard way) to be wary of mankind. God told Noah, **"The fear** of you and the dread of you shall be upon every beast of the earth and upon every bird of the heavens, upon everything that creeps on the ground and all the fish of the sea. Into your hand they are delivered. Every moving thing that lives shall be food for you. And as I gave you the green plants, I give you everything." (Genesis 9:2-3) We are left to speculate *why* a vegetarian diet would no longer be deemed sufficient for man's needs. But it is as if, from this point onward, the animal kingdom instinctively *knew* that men were not to be trusted. In fact, man himself was apparently the last "animal" to figure that out.

If nothing else, we had proved that given free will, we (as a fallen race) would choose poorly most of the time. Our need for reconciliation with the Creator from whom we had estranged ourselves was suddenly brought into sharp focus. Noah and his three sons knew this (hence the sacrifices recorded in Genesis 8:20), but their offspring, not so much. Within three generations, *religion* had been perpetrated upon the earth (the invention of Nimrod, the son of Ham's son, Cush), the "mystery religion" of Babel—the vestiges of which still trouble us to this very day. God had made Adam in His own image; Noah's great grandchildren now decided they could reinvent God in *theirs*.

But I digress. We were talking about the human race and our degenerating relationship with the animals God put here on the earth with us—in our care. It is no secret that many species are in danger of extinction today. But extinction on our planet is nothing new. It has been going on since life first appeared. Based on the fossil record, it appears that a typical species becomes extinct, on average, about ten million years after it first appears. This in turn implies that 99.9% of all species that have ever walked the earth are now gone. The only factor that is raising eyebrows nowadays is the *rate* at which species are going extinct—far in excess of the historical pace. Conventional wisdom, of course, blames this acceleration of extinction on anthropogenic causes—and they may be right.

Perhaps I should pause and explain my view of life in God's universe, for it is "out of step" with that of many of my Christian brethren—not to mention what I myself used to believe. I am fully aware, of course, that God described His creation process as taking "six days" to achieve. But it is obvious (at least to me) that the creation account is delivered in purely symbolic language—in terms designed to inform us not about how or when Yahweh built our universe and the life that resides within it (other than the fact that He *did*), but rather to reveal the nature and timeline of His ultimate plan for the reconciliation of mankind—the central (and perhaps *only*) theme of the Bible.

The creation account introduces a pattern that is repeated *ad nauseum* throughout scripture: the pattern of sevens, always presented as six of one thing, followed by one of another. It's the prototype of the Sabbath principle: that man would have six "days" (read: six thousand years) to exercise his free will, make his moral choices, and "work things out with God," and that on the seventh "day"

(i.e., the final Millennium, coterminous with the earthly kingdom of Yahshua the Messiah) we would "rest" in the consequences of those choices. At the end of the "week," the eternal state would commence. (This "week," by the way, is the inspiration for the title of this book, *The End of the Beginning*. The "beginning" is comprised of fallen man's entire seven-thousand-year mortal tenure upon the earth. Eternity is everything that follows.

The "glitches" in the creation account tell the tale. For instance, God created light on the first day, but the sun, moon, and stars didn't show up until the *fourth* day—*after* plant life on earth! God isn't stupid. He didn't invent photosynthesis without providing a source of light to power the process. No, He was posing a spiritual puzzle for us to ponder. Another clue appeared in the final chapter of the Hebrew scriptures, where we're told that the Sun of Righteousness would arise with healing in her wings. That "Sun," it would transpire, would be the Holy Spirit working in and through the Messiah, Yahshua. And *when* would this take place? The Genesis account told us the sun appeared on the "fourth day," and sure enough, Yahshua "healed us" at the very end of the fourth day—that is, the fourth millennium—of the tenure of fallen man upon the earth. That is, His ministry and passion took place four thousand years after Adam and Eve's fall into sin—the event that precipitated the need for a plan of redemption in the first place.

So the Biblical creation account wasn't intended to teach us dead, dry scientific facts, but rather living, delicious spiritual truth. That leaves it up to us to figure out on our own (since God also made us curious and resourceful) what the timeline of creation actually was—not that it matters all that much from a spiritual point of view. It is to our shame that the only reason we humans looked into the subject at all was a burning desire to "prove God wrong." The tacit theory was that if life arose and evolved spontaneously—without a Creator—then we humans could ignore God, since He "didn't exist" (or so we hoped and prayed), nor did we owe Him anything—like love, obedience, friendship, thankfulness, or respect.

So the "state religion" (which is pretty much a worldwide "scientific consensus" these days) insists that, without the input or direction of any intelligent Creator, life spontaneously invented itself. Then, over vast eons of time, random mutations (which in our *real* experience are virtually always deleterious) altered the impossibly complex DNA molecules that had assembled themselves, giving rise to more and more complex and well-suited life forms—in direct violation of the second law of thermodynamics as well as every shred of empirical evidence ever collected.

The theory, though never actually possible, was at least *plausible* as long as it was presumed that all these processes had an infinite amount of time in which to operate. But then it was discovered (through red-shift analysis) that the universe wasn't formed until about 13.7 billion years ago (in an event derisively termed

"the big bang" by one of its detractors, the astronomer Fred Hoyle—a proponent of the rival "steady-state" theory, which was later soundly disproved by the observation of cosmic microwave background radiation patterns in the '60s). Worse (for the evolutionists), it was discovered that our universe is not only continuing to expand, but its ongoing expansion is actually *accelerating*. Then, it was calculated that the age of our solar system was a "mere" 4.6 billion years (give or take). The amount of time available for uncreated life to appear, and for undirected evolution to proceed, was suddenly far too short for the theory to be evenly remotely plausible—which is not to say the scientists were ready to embrace the idea of an intelligent Creator instead.

But it gets even worse. Life could not have arisen on the earth until after the moon was formed (through violent collision with another large body in space perhaps as big as Mars—that completely destroyed the primeval earth) and the "dust" had had time to settle into the two interdependent spheres we know today. Most put this event at about 4.5 billion years ago, but the prestigious Lawrence Livermore National Laboratory places the date as recently as 4.36 billion years ago, based on its analysis of lead, samarium and neodymium found in ancient lunar rocks. Whenever it took place, the impact left both the earth and the moon (that is, the material that would become them) as unformed masses of molten magma, cooling over millions of years, and formed by the force of gravity into the spherical shapes with which we're so familiar. More to the point, the process allowed the heavy iron component of the planet to sink to the core of the molten mass, providing the magnetic field that's so uniquely crucial in protecting our planet from the cosmic rays that could otherwise strip away our upper atmosphere, including the ozone layer that protects the earth from harmful ultraviolet radiation. All of this happened eons before there was an atmosphere on this planet, you understand. Call me overly zealous, but it seems obvious to me that the Creator's guiding hand was all over this from the very beginning. The Earth, it would appear, was prepared specifically to be occupied by living creatures. Moreover, if life like ours exists elsewhere in the universe, it's because Yahweh went out of His way to make it happen—just as He did here.

Evolutionists universally opine that life began in the sea (as opposed to dry land). So we should also track the formation of the earth's aqueous environment. The oceans as we know them today are a moving target, because of continental drift. But giving the evolutionists every possible advantage, I think we can all agree that seas could not form until the earth was cool enough for water to precipitate out of its vaporous state into liquid. Note that H<sub>2</sub>O is the second most prevalent molecule in the galaxy (after CO, carbon monoxide). It is not a stretch to envision that our water was present here from the very beginning—from the initial formation of the planet from interstellar dust. In other words, there is no reason to suppose (as one theory puts it) that all of the earth's water had to be

transported here by comets over eons of time. But evolutionary theory demands that it had to be in a usable state—pooled in liquid masses on the surface, not in a vapor canopy hovering above the planet, and not bound in geologic structures within the earth's crust or mantle.

By the way, recent discoveries have determined that the *moon* has water as well—not on the surface, of course, but *under* it, especially at the poles. *Science.com* (August 27, 2013) reports, "Evidence of water spotted on the moon's surface by a sharp-eyed spacecraft likely originated from an unknown source deep in the lunar interior, scientists say. The find—made by NASA's Moon Mineralogy Mapper instrument aboard India's Chandrayaan-1 probe—marks the first detection of such 'magmatic water' from lunar orbit and confirms analyses performed recently on moon rocks brought to Earth by Apollo astronauts four decades ago, researchers said." (You didn't know America had outsourced its moon shots to India, did you?) The discovery tells me that the primeval earth *and/or* the planet-killer asteroid/comet that hit it when the moon was formed had lots of H<sub>2</sub>O in its/their makeup.

Because of a fortuitous (or is that *well-planned*?) series of remarkable "coincidences," the Earth is perfectly situated to allow the presence of liquid water on the surface—and it's the only heavenly body we know of with this property. It is precisely the right distance from the sun. Any closer, and the seas would boil off, leaving the planet as dry as the surface of the moon. Much farther away, and any water that was there would be locked up in the form of ice (as on Mars)—thus not conducive to life as we know it. If the earth were much smaller, there would not be sufficient gravity to prevent water vapor from escaping into space (as is the case with our moon). But if the planet were much larger—say, the size of Jupiter or Saturn, the proximity to the sun necessary to allow liquid water would also tend to pull the planet toward (and eventually *into*) the sun, unless its rate of orbit were at the same time extremely high. (And not to wander too far off topic, but observed gas giants in our galaxy that do orbit as close as we do to their stars tend to create a magnetic hell, in which solar superflares millions of times more violent than the big X-class flares we sometimes witness here on earth are triggered by magnetic interaction between the planets and their stars—once more making life untenable.)

Remember, the "steady-state" theory of the universe (which posits that new matter is continuously being created as the universe expands) was philosophically dear to evolutionists during the first half of the twentieth century because it provided the virtually infinite amount of time that the spontaneous generation of life from non-living matter would presumably have taken. Only cold, hard scientific facts forced the theory into retirement, replaced with the philosophically repugnant "big bang" theory, which states that the universe is of a finite age—

now determined to be somewhere in the neighborhood of 13.7 billion years. We have further determined that the earth and moon were seething masses of molten rock and metal as late as 4.36 billion years ago, meaning that surface seas could not have formed here before about 4.2 billion years in the past.

So did life have 4.2 billion years to evolve on the earth? No. Life showed up a long time ago. The earliest evidence of life discovered thus far is in sedimentary rocks from western Greenland, called the Isua sediments—formed, it is deduced, in a deep and ancient ocean. The evidence of life comes not from traditional fossils, but from a unique and telltale chemical signature formed only by living organisms—prokaryotes, primitive bacteria-like organisms whose cells lack a membrane-bound nucleus. Primitive or not, these organisms are still based on DNA, an incredibly complex molecule that only a person with really bad math skills would claim to be capable of assembling themselves and coming to life by undirected random chance. Even the simplest single-cell prokaryote is quite complex, complete with its capsule, cell wall, plasma membrane, cytoplasm, ribosomes, plasmid, pili, nucleoid (containing its DNA genetic profile), and a bacterial flagellum. They have such "advanced" features as biological feedback loops, semi-permeable one-way membranes, and the ability to self motivate and asexually reproduce. There's nothing "simple" about life.

The rocks in which this evidence of life was found have been dated at 3.8 billion years old. This means that the evolutionists have a terrible problem. Instead of having the luxury of the infinite eons of time that Darwin counted on, they are now forced to accept the impossible proposition that life sprang from non-life on this planet within a geological blink of an eye—a mere 400 million years. Or *less*: just because they've found rocks with evidence of life going back 3.8 billion years, there is no reason to suppose the gap between the preparation of earth and introduction of life upon it couldn't be even shorter—recorded in rocks they *haven't* found and examined.

And why did prokaryotes appear first, and remain the only life forms on the planet for hundreds of millions of years? Another "accident?" The evolutionist is forced to say "yes," but I can't see it. Call me stubborn, but it seems to me that the first order of business the Creator would have attended to is to build an atmosphere on the planet, one that could be utilized by more and more complex creatures. In simplified terms, prokaryotes (especially cyanobacteria) and their slightly more advanced (nucleus-equipped) cousins, the eukaryotes, engage in photosynthetic respiration, which produces free oxygen as a byproduct—oxygen which now makes up almost 21% of the air we breathe. Either we have been *really* lucky on this planet, or God has been at work here. Not only is an oxygenrich atmosphere really handy for *breathing* (if you're into things like that), but it has as an added bonus the ability to burn up most asteroids as they approach the

planet. A look at the surface of the moon will tell you instantly what a "shooting gallery" our celestial neighborhood is: it's like living in Southside Chicago in the summertime. But earth's atmosphere protects us from all but the largest hits—and it mitigates those.

By the way, evolutionists think they have sidestepped the "not-enough-time" problem by suggesting that life first flew here on asteroids from elsewhere in the galaxy. That theoretically gives them a little more time (though not nearly enough), but it doesn't solve their problem. Such life (since it supposedly "seeded" that on the earth) would have had to be based on the same incredibly complex DNA that even the simplest creatures here on earth have. By tweaking the variables, laboratory experiments have "spontaneously" generated simple nonliving amino acids by manipulating the environment (which sort of proves the need for an Intelligent Designer, doesn't it?). But to get from there to a structure as complex as a DNA molecule, you'd need to be *exceedingly* lucky: the chances of lining up all of the elements correctly without manipulating them are something in the neighborhood of one in  $10^{123}$ —that's one chance in the number 10 with 123 zeros behind it, which (to put things in perspective) is approximately 1,000,000,000,000,000,000,000,000 times the total number of atoms in the whole visible universe, something known in sane society as "impossible." But it's even worse for the evolutionist. Even if you were lucky enough for all of the atoms to line up properly, you still wouldn't have anything that you could call "alive." All you'd have was an inert (a.k.a. "dead") DNA molecule. If such a lifeless blob is not infused with a nephesh (the Hebrew word for soul, used four times in the first chapter of Genesis to describe living creatures)—all by random chance, mind you-then you've still got nothing. Your little science experiment couldn't eat, respire, reproduce, or perform any function that we might attribute to a living organism. Chemistry and life may be compatible, but they're not remotely the same thing.

All of that being said, the reality is that life appeared on planet Earth virtually as soon as the infrastructure was cool enough (and wet enough) to support it. You say you *still* don't allow the possibility of a Creative Being to have a role in this? You're still placing your faith in blind luck? Fine. Insanity is still legal, I guess. Let's start *there*, then—with one primitive "species." How did we get from microbes to man? Darwin's model predicts a slow and steady increase in complexity and "fitness" over time, assuming as it does that natural selection operated on randomly generated mutations in the living genome. Never mind the fact that virtually all such mutations are harmful (or at the very least neutral, as far as we can tell). The reality is that most mutations present nothing to "select." The theory is that some advantage is gained through the mutation, thereby making the individual less likely to be eaten by his neighbor, or more likely to breed. But none of that is germane in a world where every living thing reproduces asexually and synthesizes food from sunshine and minerals.

And then there's the inconvenient (for the evolutionist) sudden appearance of all sorts of new life-forms about 540 million years ago (using the "accepted" evolutionary chronology). It's called the "Cambrian explosion," a time when almost all of the animal phyla we know today appeared over the relatively short span of 20 million years. Before this, as we have noted, virtually all organisms were rudimentary single-celled creatures, operating either alone or in colonies. (The only phylum that shows up "late" in the fossil record is the Bryozoa-or "moss animals"—tiny aquatic invertebrates which appeared about 50 million years later, as far as we can tell. But it seems to me that if your fossil carcass is only half a millimeter long, you'd be easy to miss.) This rapid and unprecedented diversification of fauna by itself destroys the Darwinian view of evolution. Darwin knew of the fossil evidence for the Cambrian explosion, and it gave him nightmares. He hoped and prayed (to the God whose reputation he was trying to sabotage) that this evidence was due to an incomplete fossil record, but in the century and a half since he published The Origin of Species, the fossil evidence has only gotten stronger: life as we know it fair *leaped* onto the world stage within a very short span of time a little over half a billion years ago.

And worse (for them), the gaps between basic kinds of animals—a phenomenon evolutionary theory insists shouldn't be there—have grown more and more distinct as the fossil record became more complete. The "missing links" they so hoped to find simply don't exist. Of course, this is exactly what you'd expect to find if a Creator-God purposely introduced life-forms onto the planet the way He described the process in Genesis 1. The Cambrian explosion is apparently the fossil record of the fifth day of Creation. As the earth became ready to receive and support them, God *placed* (not evolved) more and more advanced animal kinds into the biosphere. (The desperate "punctuated equilibrium" theory of Eldredge and Gould tries to make sense of the scripture-supporting evidence, but all it really does is prove that as a theory, evolution is unfalsifiable, and hence unbelievable.)

All of that places us on the doorstep of our present topic: extinction. As I mentioned a few pages back, the fossil record implies that a typical species goes extinct about ten million years after it first appears, give or take. This means that 99.9% of all species that have ever walked the earth are now extinct. But perhaps those statistics are a bit misleading. They speak of "species," while the Bible speaks of "kinds." The Hebrew word used is *min*, meaning a kind, class, or taxonomical type of entity. *Strong's Enhanced Lexicon* notes: "Groups of living organisms belong in the same created 'kind' if they have descended from the same ancestral gene pool. This does not preclude new species because this

represents a partitioning of the original gene pool." And here's the key: "Information is lost or conserved, not gained. A new species could arise when a population is isolated and inbreeding occurs. By this definition a new species is not a new 'kind' but a further partitioning of an existing 'kind.""

It's relatively easy to see that dogs, wolves, coyotes, and hyenas could all be of the same Biblical "kind." Perhaps a bit harder to see, but still plausible as far as I can see, is that all "cats" are of the same kind. House cats, bobcats, ocelots, panthers, mountain lions, lynxes, leopards, lions, and tigers, and everything in between could easily have descended and developed from a single versatile gene pool. At some point, I envision God introducing a male and female of this protocat "kind," from whose offspring, over thousands of generations, came the myriad cat species we now know—including those that have gone extinct, such as the smilodon (the saber-toothed cat).

This shoots *another* fatal bullet into the heart of the theory of evolution: sexual reproduction. Under what conceivable set of circumstances could a singlecelled organism whose progenitors all reproduced asexually—by simple cell division—all of a sudden give rise to a sexually reproducing species? It would have to have two massive mutations in a row—splitting into a male *and* female versions of itself, both of whom could no longer asexually reproduce. (Or an even more ludicrous scenario: two different organisms would need to have mirrorimage mutations at the same time, in the same place—one becoming female, the other male.) These two new mutants would be responsible for finding each other in the primordial soup and *inventing sex* (which, let's face it, isn't exactly intuitive if you're a eukaryote) on the spot. The probabilities against this development absolutely boggle the mind. But as I said, a requirement for being an evolutionist is that you have to be really bad at math. For what it's worth, I am of the opinion that God introduced sex into His creation in order to provide a picture of what the relationship between us (God and mankind) is supposed to be like: one of interaction, communication, devotion, fruitfulness, and yes-love.

But I digress (again). The number of species recognized by modern taxonomists has little or nothing to do with the number of "kinds" God introduced into the biosphere. The extreme example of this principle, I suppose, is the insect world. There are more than a million *described* species of insects on record, and scientists suspect that there could be as many as *six or eight million* species out there still waiting to be discovered. They are certainly among the most diverse kinds of animal inhabiting the earth today, potentially comprising nine out of every ten extant species. How many insect species have gone extinct is anybody's guess. The question is: how many "kinds" of insect did God actually introduce? We'll never know, of course, but I can guarantee that it wasn't "millions." It was probably more like hundreds, maybe even dozens. The point is that even if species (as modern scientists recognize them) go extinct, the "kinds" of creatures God placed upon the earth at various times are still here—most of them, anyway. Individual species are merely subsets of the gene pool of the original "kind" introduced by the Creator. Each new species we find reminds us that genetic information has been lost in transit—there is no way to get back to the original faunal form once a subset has inbred for enough generations. Even cross-species fertility (such as still exists between lions and tigers, for example) will be lost, given enough generations in isolation.

These spin-off (or "daughter") species often live on when the parent species goes extinct. As an example, the extinct Hyracotherium appears to be an ancestor of the modern horse. Technically, then, scientists consider it to be what they call "pseudoextinct" (rather than extinct) because there are several extant species of Equus, including horses, zebras, and donkeys. I don't suppose the distinction matters to the poor Hyracotherium. The gene pool lives on, albeit in a fragmented, overspecialized way.

So the process of evolution is not at all as Darwin imagined it: nothing new is being created when a new "species" emerges. Rather, the new form looks different because genetic information has either been suppressed or lost altogether. Therefore, "evolution" is a misleading term—we should probably be calling the ongoing process of speciation "devolution." We are not in the process of "getting better." We are only becoming more specialized.

All of that being said, extinction proceeds apace, and by any measure, that pace has quickened. *Wikipedia* reports that "Biologist E. O. Wilson estimated in 2002 that if current rates of human destruction of the biosphere continue, one-half of all species of life on earth will be extinct in 100 years. More significantly, the rate of species extinctions at present is estimated at 100 to 1000 times 'background' or average extinction rates in the evolutionary time scale of planet Earth. However, some groups are going extinct much faster. Amphibians, for example, are disappearing as much as 45,000 times their extinction rate at the Cretaceous-Paleogene extinction rates, year by year, are (as far as we can tell) between ten and a hundred times higher than any previous mass extinctions in the history of planet Earth—*including the demise of the dinosaurs*. And this time, plant species are going extinct as well, not just animals.

Not surprisingly, the presence of "too many people" is said to be driving the trend, so they're calling it the "Holocene extinction" or the "Anthropocene extinction." A survey of four hundred biologists, conducted by New York's American Museum of Natural History in 1998, revealed that seventy percent of these science professionals had looked at the data and concluded that we were now "in the early stages of a human-caused extinction." The conclusion was that

within 30 years (that is, by 2028), up to 20 percent of all living populations could become extinct.

All of the usual suspects are blamed: climate change caused by anthropogenic greenhouse gasses; the devastation of the oceans through overfishing and pollution; the desertification and deforestation of lands as a result of man-centric forces; genocidal hunting practices; infectious diseases like the swine or bird flu; the introduction of non-native species of flora and fauna; and the retasking of huge swaths of land that were once the domain of wild animals and native plants. (Ten to fifteen percent of the earth's land surface is now being used either to grow row-type agricultural crops or is tasked for urban or industrial use.)

There are literally thousands of species that have been declared endangered or threatened today. According to the U.S. Fish and Wildlife service, the animals at risk include 361 mammal species; 317 birds; 126 reptiles; 38 amphibians; 167 fish species; 90 clams; 46 snails; 72 insects; 23 crustaceans; and even 12 kinds of arachnids (spiders). In addition, 858 plants are at risk. They say a total of 2112 species are either endangered or threatened worldwide.

The World Wildlife Federation isn't quite so optimistic. Their website declares: "In the time is takes you to read this page [which isn't all that long], one of our planet's unique species will become extinct. By this time tomorrow, a further 150-200 will have disappeared forever. And by this time next year, over 50,000 more." I don't know whether the WWF is exaggerating or the U.S. Fish and Wildlife people are understating the facts, but either way, it's reasonably clear that we're going in the wrong direction: we're supposed to be protecting God's creation, not killing it off. "This alarming rate of extinction is 100-1,000 times, and perhaps even 11,000 times, greater than the expected natural rate. One in four of the world's mammals are now threatened with extinction in the near future. So are one in eight birds, one in five sharks, one in four coniferous trees, and one in three amphibians."

Who do they blame? "By and large, the cause of this decline is human activities. The land we use for living space, food, clothing, housing, fuel; the things we buy; and the waste we produce—all this contributes to the main causes of species loss: habitat loss; unsustainable trade; bycatch [i.e., when fishermen hook or trap sea life other than their targeted catch, often the result of destructive techniques like trawling]; climate change; Invasive species; pollution; and humananimal conflict."

Elsewhere, they admit: "Nobody knows how many species are being lost each year, nor the total number of species that exist. What we have: Biologists estimate there are between 5 and 15 million species of plants, animals, and microorganisms existing on Earth today, of which only about 1.5 million have been described and named. The estimated total includes around 300,000 plant species, between 4 and 8 million insects, and about 50,000 vertebrate species (of which about 10,000 are birds and 4,000 are mammals). And what is being lost? Today, about 23% (1,130 species) of mammals and 12% (1,194 species) of birds are considered as threatened by IUCN [the International Union for Conservation of Nature, which claims to be the world's oldest and largest global environmental network]."

*GenerationExtinction.org* (a.k.a., the Alliance for Global Conservation), agrees with the WWF about pretty much everything except the numbers. They say, "More than 18,000 species are known to be at risk of extinction. Right now, most are continuing to edge towards oblivion. That's why we all need to get involved and urge the U.S. and other nations to do more to help protect the ecosystems where these animals live." *Urge* them? We've already discussed what it would take. It isn't going to happen.

Here's the reality. If the Biblical scenario doesn't come to pass on schedule something that involves two back-to-back world wars, nuclear holocaust, worldwide famine, disease on an unprecedented scale, meteor strikes, volcanic eruptions, the rise of an all-powerful satanic one-world government, religious genocide, and "the big one," an earthquake powerful enough to level mountains and sink islands all over the world—then the world's biosphere will continue to fall prey to the dozens of ongoing man-caused disasters that we've been discussing in these past few chapters. *No one* will "do more to help protect the ecosystem" if it's not in his own perceived short term self-interest. Such a thing is just not in the nature of our fallen, sinful race—whether you believe in God or not. You know it's true: even if people recognize the problems and agree with the proposed solutions, they *will not* willingly let their own families starve to support a theory, however noble they perceive the cause to be.

So one way or another, the world is a lame duck. The Biblical view, however, doesn't see it whimpering to a slow, painful demise. It's more like pulling the bandage off all at once. The seven-year Tribulation is God's idea of a big red reset button; it's like rebooting the hard drive of planet Earth, and at the same time removing the nasty virus that had infected it. Yes, the Tribulation will be utterly horrible, but for the few who survive it (and many of those who don't), it will be followed immediately by a thousand-year period of peace and restoration under the guiding hand of the Prince of Peace, Yahshua the Messiah (a.k.a. Jesus Christ)—the Creator Himself, once manifested in flesh, now glorified among men. On the other hand, it is not necessary to subject yourself to the horror of the times. God's children are not appointed to divine wrath. Yahshua promised those who trust Him, **"Because you have kept My command to persevere, I also will keep you from the hour of trial which shall come upon the whole world, to test those who dwell on the <b>earth."** (Revelation 3:10) I take that promise seriously. I hope you will as well.

But we were reporting *GenerationExtinction's* gloomy assessment of the earth's short-term prospects. "Why Are Species Disappearing? Most of the world's natural habitats including rainforests, mangroves, freshwater wetlands, coral reefs, seagrass beds and sea ice are being destroyed or damaged. Loss and degradation of these ecosystems that species depend on has put species at risk and driven some to extinction. Habitat destruction, excessive hunting, the illegal trade of wildlife (live trade for pets, or killing wildlife to sell as folk medicines or ornaments), pollution, invasive non-native species and climate change are the main activities putting species at risk. Around the world, these activities are on the rise, causing continued declines in wildlife populations.

"What's At Risk? Between 1970 and 2006, the populations of vertebrate species (animals with backbones including all mammals, birds and fish) fell by one-third. Amphibians, coral species, and plants and animals native to the tropics and freshwater ecosystem are at the greatest risk. Fewer than 3,200 tigers remain in the wild. Nearly 50% of all primates are in danger of becoming extinct. 30% of all shark species are at risk of extinction. Nearly 25% of all plant species are threatened with extinction. More than 30% of all amphibian species are already extinct or threatened with extinction."

Everyone we might consult on the matter places the responsibility for the endangerment of the natural world squarely on the shoulders of the human race. Interestingly enough, so does God: as I pointed out, we were entrusted with the care of the planet by Yahweh Himself. Alas, we have not performed the role of her caretaker, her steward, her husband. We have, rather, become her rapist.

The World Wildlife Federation opines, "Habitat loss poses the greatest threat to species. The world's forests, swamps, plains, lakes, and other habitats continue to disappear as they are harvested for human consumption and cleared to make way for agriculture, housing, roads, pipelines and the other hallmarks of industrial development. Without a strong plan to create terrestrial and marine protected areas, important ecological habitats will continue to be lost. Habitat loss is...identified as a main threat to 85% of all species described in the IUCN's Red List (those species officially classified as 'Threatened' and 'Endangered')." Ah, yes, a "strong plan" is needed. Why didn't I think of that?

It's not *just* that wildlife habitats are shrinking, or that species are disappearing, or that the oceans are threatened, or that aquifers are being depleted, or that forests are being cut down and burned, or that deserts are expanding. These things (or other equally perilous propositions) have been going on to one extent or another for as long as life has inhabited our planet. No, what's alarming (or ought to be) is the *rate* at which all of these factors are now proceeding. We're used to thinking in terms of developments becoming apparent in the fossil record, where a few feet of soil deposition might represent what took place over a million years.

But the changes to which we're bearing witness here have taken place in mere decades—before our very eyes. We're used to thinking of the demise of the dinosaurs at the K-T boundary (66 million years ago) as being "instantaneous," and it was, as these things go. But the process *still* took 33,000 years to complete, according to one recent analysis of the tektites (glassy spheres) and ash left over from the Chicxulub impact. The fauna and flora of our present world is disappearing so fast it wouldn't even leave a trace in the geological record.

Of course, the "green lobby" would cringe at the idea that man's rebellion against His Creator is the reason we've treated our world so badly—or that if we ever decided to honor Him, the problem of a disintegrating biosphere would evaporate as a result. But if you think about it, very the mindset that makes unregenerate man embrace atheism's theory of our origins—the ridiculously unsupportable doctrine of organic evolution—is the *same* mindset that encourages him to grab whatever advantage he can on an individual level—the environment be damned. "Survival of the fittest" implies the inevitable and necessary death of the "unfit." The guy on the bulldozer pushing down trees in the Amazon rainforest is determined to survive. Too bad for the rest of us.

When are we going to learn that we can't fix the ecology vicariously, by writing a check to Greenpeace or picketing a polluter. The process must begin at home, in the heart, by honoring (not to mention *obeying*) the One who created the Earth for our pleasure and His purpose.

That being said, it *can't* be fixed, and it *won't* be fixed, unless and until the *whole world* repents before Yahweh. He really doesn't want anyone to perish, but if stepping back and allowing men to kill each other off by the billions is the only way to rescue what's left of our world for His believing remnant (as He has so clearly prophesied), then so be it. One thing seems certain: if the trend continues at the present pace, by the fourth decade of the twenty-first century, the biosphere of the entire earth—including the human race—will find itself on the fast track toward extinction.

# Appendix 6 Secular Chronology Confirmation

How current trends corroborate the Bible's revealed timeline

# PESTILENCE AND DISEASE

If man were really as clever as he thinks he is, he would have figured out how to eliminate disease by now. In fact, there was a time, in our not-too-distant past, when we humans actually believed we were on the cusp of wiping out "pestilence" altogether. The serendipitous observation of what the fungus *Penicillum rubens* would do if grown in the right substrate led to the development of antibiotics—the wonder drugs that were expected to usher us all into a healthy new tomorrow. Scottish scientist Alexander Fleming's fortuitous 1928 find eventually won him the Nobel prize, and began the quest for new drugs that could be used to cure virtually anything that ailed you.

The initial optimism proved to be premature, however. Some diseases are caused not by bacteria (which responded—at least at first—to antibiotics like Penicillin), but by viruses, ubiquitous and invasive organisms that are so incredibly tiny, they can even infect bacteria themselves. Anti-viral strategies were hatched that proved quite effective against such dreaded maladies as polio and smallpox. But again, the initial euphoria was dampened when it became apparent that both viruses and bacteria had the ability to defend themselves against our efforts to eradicate them: they *changed*—just enough to avoid being easy targets for the medicines we'd developed. This defense is usually chalked up to "mutations" in their genomes, but I suspect that most of the pathogens' self-defense response is "merely" the bringing of recessive genes to the surface—genes that were always present (by God's design) but had never had to play a role before.

So here we are, over half a century later, with a very different outlook. Responsible doctors are now reluctant to prescribe antibiotics except in extreme circumstances, for fear of unnecessarily building immunity to them in the patient. Meanwhile, vaccines have taken on a life of their own: we've gone from inoculating our children against a few of the most deadly viruses to trying to head off scores of them. Basically, we've tried to *outlaw risk*—the pursuit of fools in a fallen world. It has gotten to the point where, truth be told, the inoculations themselves are more dangerous than many of the diseases they were designed to stop. The pathogens, meanwhile, are alive and well, forever poised to assume slightly different faces and reintroduce themselves to the human race. People attuned to Biblical prophecy should find none of this surprising. Pestilence, after all, was predicted as a "feature" of the Last Days, both before and after the rapture. Yahshua warned us, "See that you are not troubled; for all these things must come to pass, but the end is not yet. For nation will rise against nation, and kingdom against kingdom. And there will be famines, pestilences, and earthquakes in various places. All these are the beginning of sorrows." (Matthew 24:6-8) For all of our medical advancements, pandemics still threaten to sweep the globe. If they aren't "natural" (i.e., accidental), they're self-inflicted (like HIV/AIDS), or even part of the arsenal of insane modern nations—the capacity for biological warfare.

But it's not as if biological WMDs are really *necessary* to destroy entire populations once war breaks out on a global scale. Disease shows up more or less automatically—or at least, it always has. The last of the so called "four horsemen of the Apocalypse" (arriving after the introduction of the Antichrist, another world war, and unprecedented food shortages) was described thus: "I looked and a pale-colored horse appeared." In the original Greek, the color is a pale, sickly green. "Its rider's name was Death, and Hades came close behind him; and authority was given to them over the fourth part of the earth, to kill with the sword or with famine or pestilence or by means of the wild beasts of the earth." (Revelation 6:8) We've seen this scenario many times in the past, of course, but never before on a worldwide scale. If history teaches us anything, it is that where war goes, famine and pestilence are sure to follow. During the American Civil War, more soldiers died from infections and disease than from gunshot wounds.

It is not my purpose here to catalog all of the diseases that currently (or potentially) threaten mankind. I am merely endeavoring to point out that despite our best efforts and vastly improved knowledge, we live in a world that is just as dangerous in this regard as it ever was—if not more so. But because these essays concern not Biblical prophecy (*per se*), but rather the many secular evidences tending to confirm the prophetic timeline revealed in scripture (the 2033 hypothesis), we need to consider not only infectious or contagious diseases (those maladies the Bible would call "pestilence") but also the chronic, *non-communicable* ailments that are conspiring to bring our whole world to its knees.

Let's face it: it won't matter if we vanquish AIDS like we did smallpox, or if we rid the world of ebola, cholera, typhoid, anthrax, e. coli, influenza, the common cold, and a hundred other infectious diseases—if we all end up suffering from things we didn't "catch" from bacteria or viruses. Would the world still be able to function if *everyone* had to deal with some debilitating malady? Cancer. Alzheimer's disease. Cystic Fibrosis. Rheumatoid Arthritis. Huntington's Chorea. Asthma or Emphysema. ALS (Lou Gehrig's Disease). Autism. Epilepsy. Down's Syndrome. Crohn's Disease. Parkinson's. Schizophrenia. Multiple sclerosis. Fibromyalgia. Bi-polar Disorder. Lupus. Hemophilia. Ulcerative colitis.... Any one of these—and the list could go on practically forever—has the potential to dominate your life, to render you unproductive to some extent, and to add insult to injury, make caring for you a full time job for someone else.

At what point does a civilization faced with a growing population of medically dependent citizens simply grind to a halt? For thirty years, my wife invested her whole life in our handicapped kids (and then ailing parents) while I held down a job to keep us afloat financially. It worked, thanks to the grace of God. But if *either one of us* had become physically disabled or mentally unstable, the whole thing would have collapsed like a house of cards.

In an Associated Press article entitled *Chronic Illness Burden Rising Faster Than Expected* (November 29, 2000), Lauran Neergaard reported: "Nearly half of Americans suffer at least one chronic disease, everything from allergies to heart disease—20 million more than doctors had anticipated this year, researchers say. And they warn that the fast-growing toll, now at 125 million among a population of 276 million, will reach 157 million by 2020. One-fifth of Americans have two or more chronic illnesses, complicating their care and making it more expensive." Bear in mind that the article is well over a decade old—the statistics have only gotten worse. "The nation is unprepared to cope with the growing burden of chronic disease, with annual medical bills alone expected to almost double to \$1.07 trillion by 2020,' [said] Dr. Gerard Anderson of Baltimore's Johns Hopkins University.... Already 60 million Americans suffer multiple chronic illnesses, a number expected to reach 81 million by 2020 as the population ages, Anderson reported." I have reason to believe that even these dire predictions will fall well short of reality.

The rising incidence of diabetes can be taken as a wake-up call. A 1997 article by Harris Coulter stated: "In 1947, there were an estimated 600,000 cases of diabetes in the United States.....Today the Metropolitan Life Insurance Co.'s quarterly Statistical Bulletin estimates that diabetics make up 5 percent of the U.S. population, or 13 million persons.... So, while the U.S. population has approximately doubled since the 1940s, the number of diabetics has risen more than 20 times." Again, though the article is rather old now, the trend had not reversed itself. By 2011, the percentage had risen to 8.3 percent—that's 25.8 million people in the U.S. alone. Susan Fenelon Kerr reports: "Some doctors who specialize in pediatric diabetes say patients with the so-called 'lifestyle' diabetes, which can be controlled by exercise and nutrition, now make up 15 percent of their patient load compared to 1 or 2 percent in years past."

To give you a better feel for the potential for disaster that's looming before us, let us consider the case of autism, the fastest growing developmental disability in the U.S., though no definitive cause has been identified. (I posited a possible starting point back in our chapter on *Famine Factors*—the advent of genetically

modified foods, the manifestations and statistics for which track perfectly with the incidence of autism. Vaccine over-use has been blamed as well, but there is no consensus on the matter.) The Center for Autism reports that one percent of the population of children ages 3 to17 in the U.S. have an autism spectrum disorder. At present, its prevalence is estimated at 1 in 88 births—with four times more boys than girls being affected. 1 to 1.5 million Americans live with an autism spectrum disorder: that's an astounding 1,148% growth rate since the rise in autism incidence was noted back in the 1970s—a 600% increase in prevalence over the last two decades alone. Even more alarming, the growth rate today is 10-17% annually (depending on where you live). Put another way, the incidence of autism in 1975 was one in 5000; by 2009, it was one in only 110! Extrapolate this trend out over the next couple of decades, and you'll begin to see what I'm concerned about.

Autism is a very labor- and cost-intensive thing to deal with, never mind the emotional toll on the parents (and remember: marriage and family are now considered by many to be obsolete customs—leaving Mom to shoulder the emotional burden all by herself in many cases). What will happen when one kid in *fifty* develops autism? And *another* one in fifty has asthma? And *another* one in fifty is bi-polar? And *another* one in fifty is dealing with the symptoms of autoimmune disease?

And what will happen if their parents have their own debilitating chronic diseases to deal with—arthritis, fibromyalgia, migraines, lupus, diabetes, depression, etc. Consider this: socialism is a cultural "disease" in which society crumbles when the unproductive majority become financially dependent on the productive minority. So what will happen to civilization when the majority of people in this world are not *healthy enough* to take care of themselves (or anybody else) anymore? That's the direction we're headed, and the "event horizon," I'm afraid, is only a few decades off.

*SmartGlobalHealth.org* puts the issue of "chronic disease" into perspective for us. "The Health Challenge," they say, is that "rates of non-communicable or chronic disease continue to increase dramatically in all countries (industrialized, middle income, and low income), surpassing infections as a disease burden among adults.... Chronic disease rates have been rising in all countries. In 2002...60% of the 56 million deaths worldwide were due at least in part to chronic diseases. Nearly three quarters of the world's chronic disease-related deaths that year occurred in developing countries." So the whole thing can't be glibly written off as the price of American-style overindulgence.

"Globally, the leading chronic disease problems are: cardiovascular diseases (including strokes), cancer, chronic lung disease (including asthma), and diabetes. These problems are often the result of behaviors that increase disease risk, such as smoking tobacco, alcohol use, unhealthy diet and physical inactivity. These latter risk factors give rise to intermediate conditions such as obesity, high blood pressure and abnormal lipid (cholesterol) and glucose metabolism. The major economic impacts of chronic diseases include higher health care costs, lost productivity due to illness, disability and death among the working age population, and the need to replace these lost workers."

It is axiomatic that "nobody gets out of here alive." We all have to die of something. So a pie-chart delineating "Projected main causes of death, worldwide" (all ages, 2005) presented on Smart Global Health's website can be a bit misleading: after all, it's *always* going to add up to 100%. Even the deaths of people who "die of old age" are attributed to some immediate "cause." Nevertheless, the numbers can be revealing, since the "chronic disease" slice of the pie is steadily increasing, and because "almost 45% of chronic disease deaths occur prematurely, under the age of 70 years." 9% of deaths are due to injuries or trauma. This figure would presumably include the casualties of war and crime. 30% are due to communicable diseases, maternal and perinatal conditions [meaning that the horrendous worldwide death toll due to abortions—some 45 million souls per year—*are not* included in the tally], and nutritional deficiencies. That leaves the remainder-61% of all deaths-due to chronic (i.e., noncommunicable) diseases. So cardiovascular issues account for 30% of deaths. Cancer: 13%. Chronic respiratory diseases: 7%. Diabetes: 2%. And "other" chronic diseases add up to 9%.

But since death is a universal reality, it's not so much a matter of *what kills us* in the end, but of *how we live* while life remains. There's a spiritual component to this, but only a fool would fall into the trap of suggesting that "since God wants the best for us, if we are in the center of His will He will automatically bless us with good health." It doesn't work that way. Just ask Job. We live in a fallen, sinful world—*ergo*, bad things can happen—to anyone. They're not evidence of the proactive wrath of God (necessarily). Rather, He allows it to rain on the just and the unjust alike, mostly to see what we'll do when faced with a challenge, I suspect. Our mortal lives are for learning, and in school, there are always tests along the way. They help us (and our instructors) gauge our progress.

So when (or if) we get sick, we should receive it as an opportunity to rely physically on our God, just as we do spiritually. If nothing else, our ailments should remind us that we were not built to dwell in this world permanently—there's a whole different paradigm in store for God's children. But in the meantime, we can look for the glory of God even in our infirmities (beyond the Pauline epiphany that His grace is quite sufficient for us). They allow us the opportunity to show courage or patience in the face of adversity; they encourage us to consider the marvelous—dare I say, *miraculous*—way God has built our

bodies to cope with trauma and infection; they encourage us to give thanks for the natural world (and yes, the science of medicine, too) in which can often be found the cure to whatever ails us—if we're willing to use the eyes God gave us.

But thinking about this in strictly temporal terms, "how we live while life remains" becomes a measure of our ability to be a positive force in this world. If we're of sound body and mind, then there's nothing to prevent us from being "part of the solution" if we choose to be. But if we are compromised, whether physically or mentally, by disease of some sort, then we are less able to contribute anything of value-even if we have a heart to do so. So as more and more of us require more and more care, the situation will increasingly become a drag on our society, a boat anchor weighing down our whole civilization to some degree. At some point, the needy will overcome society's ability to care for them. At that point, our *real* beliefs will make themselves evident: genuine Christians will help the needy or die trying; secular humanists, pagans, Communists, Nazis, and Muslims, on the other hand, will throw them under the bus the moment the pressure's on. Yahshua once said, "The poor you will always have with you." That apparently goes for the infirm as well. But if He tarries, the world will eventually find itself overrun with the poor and infirm—and there will be neither money nor people enough to deal with this unstoppable flood of dire need.

## Allergies and Auto-Immune Diseases

A hundred years ago, allergies were rare, and auto-immune diseases (as such) were virtually unheard of. Today that is no longer the case. In "civilized" countries, allergies have reached epidemic proportions. *UCLA Health* recognizes the connection between allergies and a compromised immune system. They ask: "Why are Allergies Increasing? The occurrence of allergic disease is skyrocketing, and some estimates are that as many as one-in-five Americans have an allergic condition." That's over sixty million people, in one nation alone. "Allergies are specific and reproducible undesired and unpleasant immune responses that are triggered by naturally occurring substances such as foods, pollens or other influences in our surroundings. Overwhelming evidence from various studies suggests that the 'hygiene hypothesis' explains most of the allergy epidemic.

"The hygiene hypothesis states that excessive cleanliness interrupts the normal development of the immune system, and this change leads to an increase in allergies. In short, our 'developed' lifestyles have eliminated the natural variation in the types and quantity of germs our immune systems needs for it to develop into a less allergic, better regulated state of being.... Many of the advances of modernization, such as good sanitation and eradicating parasitic infections (*helminths*—worm-like eukaryotic organisms), may actually be fueling this epidemic of allergies."

Even those who consider the "hygiene hypothesis" a myth seem to agree with it to some extent. For instance, Professor Sally Bloomfield says, "The underlying idea that microbial exposure is crucial to regulating the immune system is right. But the idea that children who have fewer infections, because of more hygienic homes, are then more likely to develop asthma and other allergies does not hold up." Professor Graham Rook adds, "The rise in allergies and inflammatory diseases seems at least partly due to gradually losing contact with the range of microbes our immune systems evolved with, way back in the Stone Age. Only now are we seeing the consequences of this, doubtless also driven by genetic predisposition and a range of factors in our modern lifestyle—from different diets and pollution to stress and inactivity. It seems that some people now have inadequately regulated immune systems that are less able to cope with these other factors." To me, that sounds suspiciously like saying, "the hygiene hypothesis is perfectly correct, but there's more to it."

We've all heard the old adage, "Cleanliness is next to Godliness." It's *not* a Biblical precept, I'm afraid. And taken to extremes, cleanliness can take on the proportions of a subtle form of idolatry: *God isn't able to keep my child healthy, so I've gotta help Him out by keeping the house spotless—all germs must die!* Really? Around 1500 B.C., Moses pegged the "normal" lifespan of man at seventy or eighty years (Psalm 90:10). Nothing much has changed in all that time, except, of course, for the relative sterility of our environments. Moses, as far as I know, *never once* used hand sanitizer or disinfectant. But he picked up manna right off the ground and ate it for forty years—and he lived to be 120.

As it turns out, the people statistically most likely to develop allergies and auto-immune diseases, asthma, eczema, and rhinitis are subjected to relatively "sterile" environments in their youth, isolated from dirt and germs by their overprotective parents. They are most often raised in urban settings, and those most at risk are only-children or firstborn kids. Meanwhile, those raised in rural or farming environments (where dirt and barnyard animals are a normal part of life), those with older siblings or early socialization, those who aren't shielded from helminth infections and microbial exposure at an early age, are far more likely to grow up healthy and free of allergies. I'm not saying we'd be healthier if we all drank water contaminated with camel poop, but our bodies were crafted by God to develop immunities and antibodies at an early age to protect us from the ordinary microbes that populate our environment—by His design. The Torah strikes the right balance: "You shall have a place outside the camp, and you shall go out to it. And you shall have a trowel with your tools, and when you sit down outside, you shall dig a hole with it and turn back and cover up your excrement." (Deuteronomy 23:12-13) Even

when deployed for battle, rudimentary sanitary safeguards were to be implemented.

And what about food allergies? The UCLA group opines, "Food allergies are increasing as part of the overall trend of increasing allergies due [again] to the hygiene hypothesis. However, there are some specific reasons that food allergies are increasing.... The recent practice of delaying the introduction of some foods, such as peanuts, with high potential for allergy may be associated with higher rates of food allergy.... Different forms of the same food appear to be more likely to provoke an allergic response." For example: "Roasting peanuts rather than boiling them makes them much more likely to cause an allergic reaction. Also, many people with milk or egg allergy can tolerate baked forms of these foods." They suggest, however, that part of the increase in these allergies may simply be due to heightened awareness and better reporting.

Drug allergies are also becoming a bigger issue in recent days. "Any unintended, undesired effect of a medication is called an adverse drug reaction. Allergic reactions are just one type of these reactions, caused by specific immune responses. It is important to know if an adverse reaction is actually an allergy due to an immune mechanism because these reactions can be unpredictable, and severe allergic reactions can be very dangerous.... Each new drug or supplement has possible unwanted and undesired side effects and the potential to cause allergic immune-mediated reactions.... It is likely that both adverse drug reactions and drug allergies are increasing."

Another theory is presented by Barbara Loe Fisher, writing (in November, 2004) for the National Vaccine Information Center (an anti-vaccination advocacy group). She sees a link between the recent increase in allergies and the prevalence of vaccines: "The number of American children suffering from life threatening peanut allergies has doubled in the past five years, and the number of Americans with food allergies has risen from 6 million to 11 million. This runs parallel with the doubling of asthma, learning disabilities, ADHD; the tripling of diabetes and a 200 to 7,000 percent increase in autism in every state in the U.S. during the past 20 years. As more and more vaccines are mandated to prevent more and more infectious diseases in early childhood, more and more Americans are stuck on sick. So the pharmaceutical industry produces drugs and vaccines that medical doctors sell to patients to try to 'cure' the chronic illness that vaccines and suppression of all infectious disease helped to cause in the first place. What a racket." Elsewhere she describes the trade-off: "Instead of epidemics of measles and polio, we have epidemics of chronic autoimmune and neurological disease. In the last 20 years rates of asthma and attention-deficit disorder have doubled, diabetes and learning disabilities have tripled, chronic arthritis now affects nearly

one in five Americans, and autism has increased by 300 percent or more in many states." I'll leave it to you to decide whether that comprises "progress" or not.

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Autoimmune diseases are "kissing cousins" to allergies, and they too are on the rise. 50 million Americans—75% of them women—suffer from autoimmune disorders, according to Virginia Ladd, president and founder of the American Autoimmune Related Diseases Association, Inc. She writes, "With the rapid increase in autoimmune diseases, it clearly suggests that environmental factors are at play due to the significant increase in these diseases. Genes do not change in such a short period of time."

Our bodies are protected (by God's design) from infection and disease through our "immune system," which, when functioning properly, detects agents foreign to an organism's own healthy tissue—typically viruses or other parasites—and isolates and destroys them. But under certain conditions, the immune system "turns traitor," attacking the body's own healthy cells by mistake. This is called autoimmune disease. The cells being targeted can be from many parts of the body—the gut, the joints, glands, muscles, you name it.

Call me paranoid, but I'm sensing a subtle spiritual lesson in the sudden prevalence of autoimmune diseases—a parallel between autoimmune disease and the compromised human condition of the last days. The earth's "body" is attacking its own healthy cells—that is, the human race is actively betraying the one group within it that actually functions the way it was supposed to: the followers of Yahweh. It is us (always a small minority) who, after keeping the lines of communication with heaven open for millennia, and keeping the knowledge of God alive in the earth, are now seen as viruses and parasites outsiders who must be assaulted and eliminated—even though our only "crimes" are admitting that the world is sick and showing it how to get well again. The result, of course, is that the more successful the "body" is in isolating and rejecting us, the sicker it becomes. Left alone to pursue this trend, the earth's allergy to truth would eventually kill it.

Anyway, the fact that there are over one hundred different types of autoimmune disease—many of them quite similar—makes diagnosis difficult. Common symptoms include fatigue, muscle aches, and a low fever. *AlterNet* describes the onset of an autoimmune disease: "Imagine the slow, creeping escalation of seemingly amorphous symptoms: a tingling in the arms and fingers, the sudden appearance of a speckled rash across the face, the strange muscle weakness in the legs when climbing stairs, the fiery joints that emerge out of nowhere—any and all of which can signal the onset of a wide range of lifealtering and often debilitating autoimmune diseases." Treatment concentrates on reducing inflammation in joints or tissues. Thus many doctors, in an effort to blunt the symptoms (as they were trained to do), prescribe corticosteroids or other drugs designed to suppress the immune response. A blind man could see the recklessness in this sort of approach. The immune system is what protects us from infection. Repressing the immune system, if you'll recall, is what kills you if you contract the most dreaded sexually transmitted disease of all—AIDS: Acquired *Immune Deficiency* Syndrome. Duh!

From personal experience, I can vouch for the insidious nature of autoimmune diseases: my wife has dealt with them (without being accurately diagnosed until relatively recently) her entire adult life, ever since she came down with mononucleosis—twice—when she was in high school, half a century ago. Now she battles severe food allergies, celiac disease, Grave's disease, hypothyroidism, Raynaud's disease, Sjogren's syndrome, fibromyalgia, and the occasional bout of rheumatoid arthritis. (No multiple sclerosis or lupus-yet-thank God.) It all goes together, and none of it is much fun. (In apparent confirmation of the "hygiene hypothesis" demographic profile, she was an only child who was born to urban parents-who had miscarried twice before and were as a result extremely protective and fastidious about sanitation and disease prevention when she was a child.) Now that she knows what the root of the problem is, she controls the symptoms (as much as possible) with a severely restrictive vegan diet. I used to joke that "all she gets to eat is a lettuce leaf and a glass of water," but these days, that's a little too close to reality to be funny anymore. While we're on the subject, note that half a million Americans have been diagnosed with multiple sclerosis (MS)-one of the autoimmune club's "usual suspects." But because the symptoms often go unrecognized for what they are, that number could easily fall far short of reality.

Grace Rattue, writing for *Medical News Today* (June 22, 2012) says, "According to a new study the prevalence and incidence of autoimmune diseases, such as lupus, celiac disease, and type 1 diabetes, are on the rise, and researchers at the Center for Disease Control and Prevention are unsure why. Between 2001 and 2009, the incidence of type 1 diabetes increased by 23%, according to The American Diabetes Association.... Type 1 diabetes occurs when the body's own immune system destroys the insulin-producing cells of the pancreas, while Type 2 diabetes, the most common form of diabetes, occurs when the body does not produce enough insulin or cannot use the insulin adequately."

Virtually every manifestation of autoimmune disease is on the rise especially in the "developed" world. "The incidence of celiac disease, which causes the body's immune system to attack the small intestine, is also on the rise, according to the U.S. National Institutes of Health and the University of Chicago Celiac Disease Center. In the United States, 1 in 133 people are affected by celiac disease." As my wife discovered, the most fundamental defense against celiac disease is a strict gluten-free diet—which says something about the times in which we live: wheat (the primary source of gluten) has been a dietary staple for much of mankind since the dawn of history.

Again, it seems as if our own planet has turned against us. Can you really blame it?

### Treatment-Resistant Virus/Bacteria Mutations

We've all heard of horror stories of infectious diseases that once responded well to "standard" treatments reemerging later in an altered form—now resistant to everything the doctors throw at them. Antibiotics like Penicillin had stunning successes against their bacterial foes in the 1930s, but by 1947, resistant strains like *Staphylocccus aureus* had begun to appear. (The dreaded MRSA— methicillin-resistant *Staphylococcus aureus*—was first seen in Britain in 1961, and has now become commonplace in hospitals worldwide.) Today, at least seventy percent of the bacteria strains responsible for the kind of infections people pick up in hospitals have become resistant to one or more of the antibiotics that are deployed against them.

Contrary to popular opinion, these bacteria aren't *evolving*, exactly. That is, they're not in the process of becoming more complex, better suited organisms, even though mutations, upon which natural selection acts, are sometimes involved. What we're seeing, rather, is the operation of defense mechanisms God built into the bacteria from the very beginning. In particular, once an antibiotic-resistant gene has been generated, bacteria have the ability to "swap" DNA with each other through plasmid exchange—something called "horizontal gene transfer." Faced with a new threat from an antibiotic, bacteria can actually *share* resistance genes. If a bacterium carries several of these resistance genes, it is referred to as being multiresistant—in common parlance, a "superbug."

It works this way because antibiotics don't actually destroy the whole bacteria. They merely make take one crucial function off line. It's like derailing an entire railroad train by simply loosening a single segment of track. If a resistance trait emerges that is able to withstand the particular "weapon" brought to bear by an antibiotic, the bacteria are able to share that trait among themselves if given enough time and room to maneuver. (And I'm not talking about *a lot* of time, either. Under the "right" circumstances, certain *Staph* bacteria can divide every half hour—in theory, a single cell can multiply into a million-cell colony in only ten hours. And with a genome of 2.8 million nucleotide base pairs, the potential for a fortuitous mutation is ever present.) That's why it's so important for patients to finish an entire course of antibiotics, even if they feel better after a few days: the idea is to destroy the entire targeted bacteria population in the host so an immunity to this particular antibiotic can't be formed via horizontal gene transfer from the hardiest bacteria survivors.

But no new functionality has been created; no new DNA has been created. In most cases, the change in defense strategy is due to recessive genes being brought to the surface. Something is invariably lost in the process: in order for a mutation or recessive gene to be acted upon by natural selection, some proteins will lose their normal functions. While the "new" variant may be able to fight off an antibiotic, it gives something up in return. It will prove less able to compete against the original strain in environments where antibiotics aren't a threat.

But don't take too much comfort in that trade-off. The fact is, new antibioticresistant "superbugs" are a very real danger. Mike Adams' September 17, 2013 article, posted in *NaturalNews.com*, is headlined, hysterically enough, "The coming plague will not be stopped by drugs: CDC now admits era of antibiotics at an end as bacteria out-wit drug companies." That's sort of like the Pope confessing that Martin Luther was right after all—it's not the kind of statement we've come to expect.

"In a breakthrough moment of truth for the CDC [the Centers for Disease Control], the agency now openly admits that prescription antibiotics have led to a catastrophic rise in superbugs, causing the death of at least 23,000 Americans each year (an estimate even the CDC calls 'conservative').... What's truly astonishing about this report is that it admits, in effect, that modern medicine is a failure when it comes to infectious disease. The whole approach of fighting bugs with isolated chemicals was doomed to fail from the start, of course, since Mother Nature adapts to chemical threats far more quickly than drug companies can roll out new chemicals." I, for one, would caution against declaring "Mother Nature" your god. As we have seen elsewhere, "she" herself is showing all the symptoms of having caught a debilitating—and perhaps fatal—disease. "Mother Nature" is neither omnipotent nor immortal. Yahweh is both. Worship Him alone.

The article continues, "Sadly, the very approach of using an isolated chemical to combat disease is rooted in a 1950s mentality that has nearly reached its endpoint in the history of medicine. The CDC all but admits this now, saying the era of antibiotics is nearing its end. 'If we are not careful, we will soon be in a post-antibiotic era,' says Dr. Tom Frieden, director of the CDC. The admission should send alarm bells ringing across the medical establishment, because what it really means is the day isn't too far off when doctors and hospitals can no longer offer treatments for common infections...." The fourth decade of the twenty-first century, perhaps? Just a guess.

"The CDC, predictably, also says part of the solution is to get more people vaccinated." More on that in a moment. "This makes no sense whatsoever as vaccines only make immune systems weaker while doing nothing to prevent infections of superbugs. On the positive side, the CDC did say that antibiotic use should be curbed in agriculture (meaning fed to animals for meat production). In truth, more antibiotics are used each year in agriculture than in humans...." As I mentioned before, my experience in designing packaging for the natural foods industry revealed that sub-theraputic levels of antibiotics (in poultry, at least) were administered not so much to ward off disease as to artificially raise the water content of the meat—and their *weight*—allowing chicken and turkey ranchers to butcher their birds fifteen to twenty percent earlier than if they had been raised naturally. When you're feeding a couple of hundred thousand chickens, the savings aren't chicken feed. Or rather, they *are* chicken feed. You know what I mean.

Wisdom and discernment need to be applied here, but these things are always in short supply when wheelbarrows full of money are at stake. "Ultimately, the use of antibiotics needs to be sharply limited. There are still cases in which limited, targeted use of antibiotics is a real lifesaver, but the widespread abuse of antibiotics is what has led our medical system to the brink of collapse when it comes to deadly superbugs...."

Adams points out that a parallel problem is taking place in the world of agriculture, where runaway "superweeds," the result of the widespread use of glyphosate with GMOs, are making it harder and harder to deal with. The escalation of potency, whether trying to eradicate superweeds or superbugs, can't be sustained forever. "Both problems are promised to be solved with 'yet more chemicals' to overcome the resistance to the previous round of chemicals. There's a fatal problem with this: each round of chemicals needs to be substantially more toxic than the last round, causing a 'spiral of chemical toxicity' that will only lead human civilization to its own destruction.

"Even right now, we are very close to the rise of a highly infectious superbug that is resistant to all known antibiotics. Once unleashed, such a superbug could sweep through the population and cause the death of over a billion people across the planet. In such a scenario, the entire system of western medicine has zero tools to deal with it. There is no vaccine, no drug and no FDA-approved treatment that will even touch it.... In the coming superbug plague, the drug companies will be useless. Your doctor will be useless. Hospitals will be disease-infested death traps. The CDC will be paralyzed with bureaucracy and hopelessly stuck in the era of chemical medicine. Only people who possess the nearly-lost knowledge of natural plant-based antibiotics will have any real chance of surviving such an outbreak if they become infected." Mike is *such* a smiley-faced Pollyana, always looking on the bright side. Level with us, Mr. Adams. Don't hold back: tell us what you *really* think.

Of course, if you've been paying attention, you know that runaway disease is only one of *scores* of unprecedented ways for people to die in vast numbers during the next few decades. Adams suggests developing a working knowledge of "natural" remedies and herbal antibiotics. I would recommend a slightly more radical (or at least more counterintuitive) approach: *wake up* to the fact that these mortal lives we're living were never intended by our Creator to be all there is to it. Repent before Yahweh, and put your life in His capable hands. He *told us* that Tribulation was in our future—and He told us how to rise above it.

Most of the world, however, says via their actions, "I'd rather *die* than accept the idea of a holy, uncreated God with morals and standards, one who wouldn't approve of the way I'm living my life." It's not that they know God's Law and reject it, however: their own consciences condemn them. Ironically, that same God who revealed His standards of morality *and* instilled the human race with those inconvenient consciences, gave our race the privilege of making up our own minds on the matter—He built us with free will, the right to make our own moral choices. Our love is apparently all He wants, but He won't force anyone to love Him (knowing, as He does, that the very idea is nonsense: love that's compelled isn't love at all, but something else entirely—surrender, submission, compliance, maybe obeisance). In order to be love, the act must be totally voluntary. The "problem" with having free will is that our choices bring with them their own inevitable consequences. If we choose not to live under God's "law" (the law of love), then we are on our own. If we choose not to trust Yahweh, we must put our trust in something (or someone) else, something that's by definition inferior to Him—like, for instance, ourselves.

What does all of that have to do with disease? Ask yourself: would not a loving and omniscient Creator have built our bodies able to fight off most infections? *Of course* He would. If He were smart enough to have made us in the first place, He would certainly have crafted our species to be in balance with everything else He created—including microorganisms. Our immune systems were designed to ensure that we didn't succumb to every germ that came along. Granted, that perfect balance, that ironclad immunity, was lost when we fell into sin. But even after the fall—even after our bodies became corrupt and vulnerable—if they had been susceptible to every bacteria or virus that entered our environment, the human race would have died out in the first few generations. And we didn't. God has a vested interest in seeing us alive and well, for dead people don't choose, don't respond, and don't love.

But I digress. We were talking about antibiotics, vaccines, and their growing inability to cope with the infectious diseases that beset mankind. It is becoming increasingly obvious that what began as our "best laid plan" has taken on a life of its own. The driving force is no longer an altruistic desire to cure the diseases that afflict our fellow man, but has become something a wee bit less noble: the pursuit of profits. *TheHealthyHomeEconomist.com* (August 25, 2011) reports: "The market for vaccines is expected to surpass \$36 billion dollars by 2013. Vaccines are clearly an important growth industry for Big Pharma. Just witness the rapid increase in the childhood vaccination schedule from 3 shots in 1950 to 68 vaccines by age 11-12 today (25 of those by the age of 6 months)! In 1986, it cost a parent about \$80 for her child to receive every government recommended vaccine. In 2011, it cost \$2200! Clearly, vaccines are one of the fastest growing sectors of the pharmaceutical industry. \$4 billion in tax dollars are spent every year purchasing vaccines for health clinics in the United States alone."

To be fair, just because somebody is making tons of money pushing an agenda of vaccinating kids against every ailment they can think of, it doesn't *necessarily* follow that vaccinations are bad. But it certainly makes it harder to be objective—especially if you're a Big Pharma executive with Porsche payments to make. But we should heed not our paranoia, but rather the telling and "inconvenient" statistics. They're becoming harder than ever to ignore or explain away. One broad multinational survey of *un*vaccinated children revealed that:

"Less than 10% of unvaccinated children suffer from allergies of any kind. This compares with 40% of children in the USA ages 3-17 reporting an allergy to at least one allergen and 22.9% with an allergic disease." In other words, children who have received the full complement of vaccines as demanded by our government are four times more likely to develop allergies than those who aren't.

"0.2% of unvaccinated children suffer from asthma. This compares with 14-15% of vaccinated children with asthma in Australia, 4.7% in Germany, and 6% in the USA." Again, you are *thirty times* more likely to develop childhood asthma if you are vaccinated in America—and *seventy* times more likely if you live in Australia. (Statistics from *theHealthyHomeEconomist.com*.)

And the bad news (for vaccines) keeps coming: "1.5% of unvaccinated children suffer from hay fever. This compares with 10.7% in Germany. 2% of unvaccinated children had neurodermatitis. This autoimmune disorder affects over 13% of children in Germany. ADHD was present in only 1-2% of the unvaccinated children. This compares with nearly 8% of children in Germany with ADHD and another 5.9% borderline cases. Middle ear infections are very

rare in unvaccinated children (less than 0.5%). In Germany, 11% of children suffer from this problem. Less than 1% of unvaccinated children had experienced sinusitis. This compares with over 32% of children in Germany." If it was just one malady, you could perhaps chalk it up to statistical anomaly. But this evidence points toward a pervasive, systematic assault on the health of an entire generation, perpetrated entirely for monetary gain.

I have elsewhere statistically linked autism to the new prevalence of GMOs. But chronologically, the trend toward overvaccination parallels the genetic modification of our food very closely. So note this stunning fact: "Only *four* unvaccinated children out of the 7,600+ total surveys reported severe autism. In all four cases, however, the mother tested very high for mercury." That is, there is environmental toxicity present where the family lives—something that could easily account for the autism issue. "In the USA, approximately 1 in 100 children suffer this neurological illness and 1 in every 38 boys in the UK." And the rates of autism incidence are continuing to rise—in parallel with *both* GMOs and the practice of vaccination.

So the logical conclusion is that children today are probably at risk *because of* the vaccinations they've been receiving. What about the elderly (gulp...*my* generation)? We were the first to receive vaccines on a nationwide level—and for good reason. I remember well the scourge of polio in the '50s, and the miracle of the Salk vaccine that virtually wiped it out in the western world. (Where the vaccine *didn't* go, polio remained a threat. One of my adopted daughters, born in 1974 in India, contracted the polio virus in her orphanage when she was about five years old, taking the use of her legs—adding injury to insult, as it were. And it's the gift that keeps on giving: what little muscle strength and functionality she had left was stolen in the last few years of her life by *post*-polio syndrome. Polio is still a recurring scourge in the Middle East, notably in Syria, Egypt, and Pakistan. But the Salk and Sabin vaccines spared millions of westerners from a similar fate.)

So know this: I'm not anti-vaccination on philosophical grounds. I'm merely reporting what has happened in the recent past with the aim of perceiving what our future might look like. The case of vaccines seems to be sort of like life itself: if one thing doesn't get you, something else will. Case in point, reported on the website *RawForBeauty.com*, October 3rd, 2013: "The CDC has admitted [and just as quickly removed the admission from their website] that more than 98 million Americans received one or more doses of polio vaccine contaminated with a cancer causing polyomavirus called SV40, within an 8-year span from 1955-1963. It has been estimated that 10-30 million Americans could have received an SV40 contaminated dose of the vaccine.

"SV40 is an abbreviation for Simian vacuolating virus 40 or Simian virus 40, a polyomavirus that is found in both monkeys and humans. Like other polyomaviruses, SV40 is a DNA virus that has been found to cause tumors and cancer. SV40 is believed to suppress the transcriptional properties of the tumorsuppressing genes in humans through the SV40 Large T-antigen and SV40 Small T-antigen. Mutated genes may contribute to uncontrolled cellular proliferation, leading to cancer.... Polio vaccines contaminated with SV40 virus...caused cancer in nearly every species infected by injection. Many authorities now admit much, possibly most, of the world's cancers came from the Salk and Sabin polio vaccines, and hepatitis B vaccines, produced in monkeys and chimps." So the cure may turn out to be as bad as the disease. If the polio doesn't get you, maybe the cancer or hepatitis will.

What kind of cancer? "It is said mesothelioma is a result of asbestos exposure, but research reveals that 50% of the current mesotheliomas being treated no longer occurs due to asbestos but rather the SV40 virus contained in the polio vaccination. In addition, according to researchers from the Institute of Histology and General Embryology of the University of Ferrara, SV40 has turned up in a variety other tumors. By the end of 1996, dozens of scientists reported finding SV40 in a variety of bone cancers and a wide range of brain cancers, which had risen 30 percent over the previous 20 years...

There were two kinds of polio vaccine—an oral, live virus, and an injectable inactive version. Both forms were tainted with the SV40 strain. And it has come to light that the technique that was used to inactivate the polio virus in the injectable version relied on *formaldehyde*—which was later found unreliable in killing the SV-40 virus. Formaldehyde itself is a known carcinogen (causing proteins to irreversibly bind to DNA), and the chemical styrene is suspected as well. But these substances are still found in virtually every vaccine. Somebody is asleep at the switch. Or perhaps he's making so much money, he just doesn't care.

The website *Whale.to* offers a plethora of research tying the over-use of vaccines to increasing rates of diseases that they were *not* designed to prevent. In an article by Richard Gale and Dr. Gary Null (December 23, 2009) with the unwieldy title, "The Council of Foreign Relations Enters the Vaccine Biz— Desperate Attempts to Salvage a Corrupt Science with Sound-bites," they make the case that some of the most dreaded virus strains were in retreat long before the vaccines deployed against them were even available. "According to mortality figures from the British Office of National Statistics, measles and pertussis (whooping cough) began their rapid decline at the end of the nineteenth century. Both were down 99 percent from 1838 to the year the vaccines were introduced (pertussis in 1950 and measles in 1968).

"There is another example of an infectious disease that was far more deadly than smallpox that never had a widely accepted vaccine and yet eventually fell into obscurity. During the nineteenth century, scarlet fever was responsible for more deaths than measles, pertussis and smallpox. An ineffective vaccine was created in 1924 but disappeared after the introduction of penicillin. What is important in the example of scarlet fever is that infectious diseases declined not because of vaccine miracles, but because of many other factors including improved health, cleaner water and sanitation, public utilities, better living and working conditions, improved nutrition and other medical advancements. This is the same for just about every infectious disease during the first half of the twentieth century that was already in rapid decline *before* the advent of their respective vaccines." So the case can be made that simple sanitary precautions are more effective than vaccines in stamping out many infectious diseases over time. It is as I've always suspected: given a fighting chance, our bodies are quite capable of defending themselves against most microbes. It's the way we were designed.

Maybe it's a flaw in human nature: we tend to crave the "miracle cure" so we don't have to stop living like pigs. And I'm not just talking about communicable diseases here, but in every facet of our lives. We shun hard work, but dream of hitting a big lotto jackpot. We defer maintenance because we're lazy (or perhaps because we don't really appreciate what we have), hoping that dumb luck will achieve what we didn't. We'd rather live on welfare than earn the same amount of money doing honest work for minimum wage. We want to have a pill that cures AIDS, but we aren't willing to restrict our sexual contact to one partner for our entire lives. And some among us love the idea of "salvation by grace" because we have this insane notion that it somehow authorizes us to sin like Caligula, since our transgressions have already been forgiven. What part of "Take up your cross daily and follow Me" didn't we understand? What part of "Be holy, for I am holy" don't we comprehend? We need to come to terms with the fact that in God's economy, although miracles do occasionally happen and providence is an ever-present background reality, we have a big part to play in our own well being and mortal destiny. It's part of having free will. Yahweh promised to spare the Israelites the ravages of the "diseases of the Egyptians," but only if they followed His Instructions-like "don't eat pigs," "don't drink blood," or "Don't have sex with someone other than your own spouse." God never offered us a magic pill for anything. So when men do, we should at the very least view it with suspicion.

Dr. Gerhard Buchwald M.D., in *The Decline of Tuberculosis despite "Protective" Vaccination*, paints a bleak picture: "Vaccinations are now carried out for purely commercial reasons because they fetch huge profits for the pharmaceutical industry.... There is no scientific evidence that vaccinations are of any benefit, but it is clear that they cause a great deal of harm.... Today there are 800,000 children and youngsters under the age of 15 years (in Germany) with asthma. 800,000! Neurodermitis, once a rare complaint, has become so common that there are several support networks with many thousands of members. The 'Frankenpost' of April 2004 reported an estimated 27 million people now suffer from hayfever, neurodermitis and allergic asthma in Germany."

Another "inconvenient truth" from the *whale.to* website: "A critical point which is never mentioned by those advocating mandatory vaccination of children is that children's health has declined significantly since 1960 when vaccines began to be widely used. According to the National Health Interview Survey conducted annually by the National Center for Health Statistics since 1957, a shocking 31% of U.S. children today have a chronic health problem, 18% of children require special health care or related services and 6.7% of children have a significant disability due to a chronic physical or mental condition. Respiratory allergies, asthma and learning disabilities are the most common of these."—*Incao's Hepatitis B Vaccination Testimony.* When the statistical correlation between vaccines and chronic childhood diseases is this strong, it would be irresponsible not to consider if there might be a cause-and-effect link. In fact, it's hard *not* to perceive a nefarious conspiracy behind the whole thing—one *designed* to collapse human civilization.

Barbara Loe Fisher in her article *In the Wake of Vaccines* writes, "One American child in 166 has been diagnosed with autism spectrum disorder.... 9 million American children under 18 have been diagnosed with asthma.... Nearly 3 million children [are] learning disabled.... 4 million children between the ages of 3 and 17 years have been diagnosed with ADHD.... 206,000 Americans under the age of 20 have type 1 diabetes.... 1 in 400 to 500 American children and adolescents are now diabetic. Today, arthritis affects one in three Americans, and about 300,000 American children have juvenile rheumatoid arthritis. Juvenile rheumatoid arthritis used to be so rare that statistics were not kept until its recent rise in children." A hundred years ago, these maladies were either extremely rare or nonexistent.

In short, it's not a few isolated cases. It's not just one disease. It's not restricted to one geographical region. And there's probably not just one allencompassing cause. But *something* we're doing (or something that's being done to us) is making a large contingent of an entire generation chronically ill. And the world's recent and increasing reliance on drugs and vaccines (instead of reliance on Yahweh's incredibly robust design for our bodies' self defense) is harming the human race instead of helping it. Although the vaccine hoax is still largely known only to "conspiracy theorists" here in the U.S. because of our pervasive culture of cover-up and self-deception, the truth has begun to leak out—like Niagara Falls—in other places. The blog *nsnbc* posted an article by Andrew Baker about the Freedom of Information Act *in the UK*, entitled, "The Vaccine Hoax is Over—Documents from UK reveal 30 Years of Coverup." It stated, "A Freedom of Information Act [request] in the UK filed by a doctor there has revealed 30 years of secret official documents showing that government experts have (1) known the vaccines don't work; (2) known they cause the diseases they are supposed to prevent; (3) known they are a hazard to children; (4) colluded to lie to the public; and (5) worked to prevent safety studies." He notes that "Those are the same vaccines that are mandated to children in the U.S. Educated parents can either get their children out of harm's way or continue living inside one of the largest most evil lies in history: that vaccines—full of heavy metals, viral diseases, mycoplasma, fecal material, DNA fragments from other species, formaldehyde, polysorbate 80 (a sterilizing agent)—are a miracle of modern medicine." Well, they're a miracle of modern *marketing*, at least.

Baker goes on to claim, "The CDC is obviously acting against the health of the American people. But the threat to the lives of the American people posed by the CDC's behavior does not stop there. It participated in designed pandemic laws that are on the books in every state in the U.S., which arrange for the government to use the military to force unknown, untested vaccines, drugs, chemicals, and 'medical' treatments on the entire country if it declares a pandemic emergency." Call me paranoid, but I'd willing to bet that such an "emergency" would be more likely to be triggered by a resurgence in patriotism or faith—or even common sense—than by the actual emergence of disease.

So the article goes on to state, "The CDC's credibility in declaring such a pandemic emergency is non-existent, again based on the Freedom of Information Act. For in 2009, after the CDC had declared the H1N1 'pandemic,' the CDC refused to respond to Freedom of Information Act filed by CBS News, and the CDC also attempted to block their investigation. What the CDC was hiding was its part in one of the largest medical scandals in history, putting out wildly exaggerated data on what it claimed were H1N1 cases, and by doing so, created the false impression of a 'pandemic' in the US. The CDC was also covering up a financial scandal to rival the bailout, since the vaccines for the false pandemic cost the U.S. billions. And worse, the CDC put pregnant women first in line for an untested vaccine with a sterilizing agent, polysorbate 80, in it. Thanks to the CDC, the number of vaccine-related 'fetal demise' reports increased by 2,440 percent in 2009 compared to previous years."

Another vaccine that's raising a few eyebrows these days is "designed" to prevent HPV (human papilloma virus), a rather common and usually uneventful bug that is purportedly linked to cervical cancer and genital warts. But as Brent Lambert (writing for *FeelGuide.com*, July 16, 2013) reports, "Dr. Diane Harper

was the lead researcher in the development of the human papilloma virus (HPV) vaccines, Gardasil<sup>TM</sup> and Cervarix<sup>TM</sup>. She is now the latest in a long string of experts who are pressing the red alert button on the devastating consequences and irrelevancy of these vaccines. Dr. Harper made her surprising confession at the 4th International Conference on Vaccination which took place in Reston, Virginia. Her speech, which was originally intended to promote the benefits of the vaccines, took a 180-degree turn when she chose instead to clean her conscience about the deadly vaccines so she "could sleep at night."

"The following is an excerpt from a story by Sarah Cain: 'Dr. Harper explained in her presentation that the cervical cancer risk in the U.S. is already extremely low, and that vaccinations are unlikely to have any effect upon the rate of cervical cancer in the United States. In fact, 70% of all HPV infections resolve themselves without treatment in a year, and the number rises to well over 90% in two years. Harper also mentioned the safety angle. All trials of the vaccines were done on children aged 15 and above, despite them currently being marketed for 9year-olds. So far, 15,037 girls have reported adverse side effects from Gardasil<sup>™</sup> alone to the Vaccine Adverse Event Reporting System (VAERS), and this number only reflects parents who underwent the hurdles required for reporting adverse reactions. At the time of writing, 44 girls are officially known to have died from these vaccines. The reported side effects include Guillian Barré Syndrome (paralysis lasting for years, or permanently—sometimes eventually causing suffocation), lupus, seizures, blood clots, and brain inflammation. Parents are usually not made aware of these risks. Dr. Harper, the vaccine developer, claimed that she was speaking out so that she might finally be able to "sleep at night." "About eight in every ten women who have been sexually active will have HPV at some stage of their life," Harper says. "Normally there are no symptoms, and in 98 per cent of cases it clears itself. But in those cases where it doesn't, and isn't treated, it can lead to pre-cancerous cells which may develop into cervical cancer.""

"Although these two vaccines are marketed as protection against cervical cancer, this claim is purely hypothetical. Studies have proven there is no demonstrated relationship between the condition being vaccinated for and the rare cancers that the vaccine might prevent, but it is marketed to do that nonetheless. In fact, there is no actual evidence that the vaccine can prevent any cancer. From the manufacturers own admissions, the vaccine only works on 4 strains out of 40 for a specific venereal disease that dies on its own in a relatively short period, so the chance of it actually helping an individual is about the same as the chance of her being struck by a meteorite."

But at the same time (as reported by the National Conference of State Legislatures), "Since 2006, legislators in at least 42 states and territories have

introduced legislation to require the vaccine, fund, or educate the public or school children about the HPV Vaccine. At least 25 states and territories have enacted legislation, including Colorado, District of Columbia, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Michigan, Minnesota, Missouri, Nevada, New Mexico, New York, North Carolina, North Dakota, Oregon, Puerto Rico, Rhode Island, South Dakota, Texas, Utah, Virginia, Washington and Wisconsin." So the HPV vaccines have been proven worthless, dangerous, and unnecessary, and yet they're required by law throughout half the country.

Gee, if you can't trust your government, who *can* you trust? Trick question, of course—governments have *never* been trustworthy, comprised, as they are, of mortal men. Today's governments seem to be getting worse, but perhaps that's only because we're close enough to see what they're up to. As for me, I'm trusting the "government" that will soon rest upon the shoulders of Yahshua, the risen and glorified Messiah (Isaiah 9:6; Matthew 28:18; Revelation 19:15-16). I'm certain He will commence His Kingdom upon the earth as the Bible promises, and I'm pretty sure I even know when. But even if I'm mistaken about the timing, one thing still seems certain: if the current trend continues at its present pace, by the fourth decade of the twenty first century, diseases both chronic and communicable will be crippling human society, and there won't be a thing mankind can do to stem the tide of misery.

#### Sexually Transmitted Diseases

The Apostle Paul wisely wrote, **"Flee sexual immorality. Every sin that a man does is outside the body, but he who commits sexual immorality sins against his own body."** (I Corinthians 6:18) We're about to find out precisely what that means, in visceral and practical terms.

If there's one category of pestilence that is inextricably tied to sin, this is it. Think about it. You can catch typhoid, cholera, African sleeping sickness, or the common cold simply by being in the wrong place at the wrong time. You can be afflicted with autism, cancer, diabetes, or lupus through no fault of your own. But there is a whole range of sexually transmitted disease rampant in the world today that need not *ever* have been a problem—if only mankind would have heeded our Creator's Instructions. Nobody seems to want to hear it, but STDs don't infect people unless there's sexual contact, and God's pattern decrees that one man is to marry one woman, and the two are to remain *sexually exclusive* for their entire lives—beginning as virgins, and ending as aging lovers with fond memories of the unrestrained passion they shared in their youth. Furthermore, STDs would *disappear in one generation* if everyone suddenly began abiding by this one simple principle (yeah, picture that). We shouldn't write off God's Instructions

just because there is a heavy and obvious symbolic component to them—teaching us what our relationship with Yahweh is supposed to be like as his "bride" and "wife." They are also eminently practical.

God *allowed* polygamy—also for symbolic reasons—but careful attention to the scriptural details reveals that whenever a man had more than one wife (or concubine), there was *always* trouble attached. Widows were allowed to remarry as well (for practical reasons), and here too, there is a symbolic component something beyond the scope of this present chapter's subject, I'm afraid. But the bottom line is, God never authorized or promised to bless the sort of noncommittal serial monogamy that's so prevalent in today's world, much less the unrestrained licentiousness that characterizes broad swaths of humanity in these Last Days—the kinds of things that make sexually transmitted diseases a deadly and growing phenomenon. After all, **"He who commits sexual immorality sins against his own body."** 

They used to be called VDs, "venereal diseases" (named after Venus, the pagan Roman goddess of love and sex). But STD (sexually transmitted disease) was a more accurate term. Lately, that label has been redefined somewhat by the even broader "STI"—sexually transmitted *infection*—since "disease" may imply that the carrier is symptomatic, and this is not always the case. But it doesn't really matter what you call them: these are self-inflicted curses, and totally preventable (which is not to say they're totally *curable* once you've contracted them).

Unlike other disease "families," STDs are defined by their mode of transmission (sexual contact) rather than the type of organism that causes the infection, bugs that run the gamut of germ classifications. *Wikipedia* provides the following list of STDs, grouped by organism type:

(1) Bacterial: Chancroid (*Haemophilus ducreyi*); Chlamydia (*Chlamydia trachomatis*); Gonorrhea (*Neisseria gonorrhoeae*), colloquially known as "the clap"; Granuloma inguinale (or *Klebsiella granulomatis*); and Syphilis (*Treponema pallidum*).

(2) Fungal: Candidiasis (yeast infection).

(3) Viral: Viral hepatitis (Hepatitis B virus)—spread via saliva, venereal fluids; Herpes (*Herpes simplex virus* 1, 2) skin and mucosal, transmissible with or without visible blisters; HIV (*Human Immunodeficiency Virus*)—venereal fluids, semen, breast milk, blood; HPV (*Human Papillomavirus*)—skin and mucosal contact. 'High risk' types of HPV and cause cervical cancers, as well as some anal, penile, and vulvar cancer. Some other types of HPV cause genital warts; and MCV (*molluscum contagiosum virus*)—close contact.

(4) Parasites: Crab louse, colloquially known as "crabs" or "pubic lice" (*Pthirus pubis*); Scabies (*Sarcoptes scabiei*).

(5) Protozoal: Trichomoniasis (*Trichomonas vaginalis*), colloquially known as "trich."

It is virtually impossible to come down with an STD without sexual contact somewhere in the loop. The *Wikipedia* article explains: "As may be noted from the name, sexually transmitted diseases are *transmitted* from one person to another by certain sexual activities, rather than actually being *caused* by those sexual activities. Bacteria, fungi, protozoa or viruses are still the causative agents. It is not possible to catch any sexually transmitted disease from a sexual activity with a person who is *not* carrying a disease; conversely, a person who has an STI got it from contact (sexual or otherwise) with someone who had it, or his/her bodily fluids. Some STIs such as HIV can be transmitted from mother to child either during pregnancy or breastfeeding."

These diseases are passed from one person to another by fluid transfer (blood, semen, saliva, mucous secretions etc., varying from disease to another), so the body's orifices (whether designed by the Creator as sexual apparatus or not) offer pretty much the only opportunity for such fluid transfer to occur. "Although the likelihood of transmitting various diseases by various sexual activities varies a great deal, in general, all sexual activities between two (or more) people should be considered as being a two-way route for the transmission of STIs, i.e., 'giving' or 'receiving' are both risky although receiving carries a higher risk."

All of this begs the question: if you can only get an STD from someone who was infected before you, how did these diseases begin in the first place? You're not going to like the answer, I'm afraid. I was only able to track down a few of them, but they point toward parallel perversions. Syphilis is from a bacteria that lives naturally (and harmlessly) in sheep; and the HIV virus was first contracted by humans having sexual contact with primates—apes—in Africa. Chlamydia is caused by bacteria carried by dogs. In other words, it's bestiality. I'm having trouble seeing the attraction, but I'm told it exists.

Yahweh even went out of His way to forbid the practice in the Torah. Immediately after He forbade homosexuality by saying "You shall not lie with a male as with a woman. It is an abomination," God commanded, "Nor shall you mate with any animal, to defile yourself with it. Nor shall any woman stand before an animal to mate with it. It is perversion. Do not defile yourselves with any of these things; for by all these the nations are defiled, which I am casting out before you. For the land is defiled; therefore I visit the punishment of its iniquity upon it, and the land vomits out its inhabitants." (Leviticus 18:22-25) Homosexuality and bestiality were listed as specific reasons why the seven Canaanite nations were being evicted out of the Land of Promise. The practices were so common, and so intimately associated with idolatry, that Yahweh promised to throw the Israelites out of the Land too if they tolerated or practiced these perversions of the natural order. Part of the prohibition (a small part, to be sure) was because God didn't want His people physically weakened by the diseases that can arise and spread from doing these things. So later, the punishment was prescribed: "If a man mates with an animal, he shall surely be put to death, and you shall kill the animal. If a woman approaches any animal and mates with it, you shall kill the woman and the animal. They shall surely be put to death. Their blood is upon them." (Leviticus 20:15-16) Dead perverts spread no diseases.

The so-called "gay" lobby hates Yahweh for raining on their gay-pride parade. *He's such a killjoy*, they say. *If I want to stick my sexual apparatus into a wood chipper, I should be allowed to do it! In fact, all you boring "straights" should be required to tolerate—and even support—my God-given right to do whatever God warned us not to do!* But God was showing His people how to remain healthy, whether on a physical level or as a spiritual metaphor. He was saying something that you'd think would have been so obvious as to not even require mention: *Please don't soak your head in kerosene and light it on fire.* I have no earthly idea where gonorrhea or herpes first came from. I don't think I *want* to know.

Convention "wisdom" universally recommends "safe sex," that is, using a condom when having sex with total strangers. While lowering the odds of contracting an STD (or pregnancy), they've missed the point altogether. The only *really* safe sex is to restrict your sexual contact to your lifelong spouse—the wife (or husband) of your youth—exclusively. Within the marriage bond, however, God encourages—even *commands*—sex. I've always found it strange that so many folks think that God is somehow prudishly anti-sex. He isn't. He *invented* it, for cryin' out loud. And His very first commandment to Adam and Eve was to "**Be fruitful and multiply: fill the earth.**" (Genesis 1:28) That requires sex, and lots of it. God didn't forbid sex; He merely told us how to avoid the health issues that can result from its misuse. You don't have to recognize its symbolic significance—that Yahweh's relationship with His people is like that of a committed married couple: loving, affirming, fruitful, enduring, and pleasurable—to benefit from the practical results of keeping His Instructions.

In fact, the *only* time Yahweh said to abstain from sex was during the wife's menstrual period, typically lasting about five days per month. **"You shall not approach a woman to uncover her nakedness as long as she is in her customary impurity."** (Leviticus 18:19) As usual, there are practical reasons backing up God's law, though we should follow His Instructions even if we have no clue as to what those reasons are. Intercourse during menstruation, as it turns out, makes a woman more vulnerable to a variety of vaginal infections, and puts her at greater risk for cervical cancer. Moreover, abstinence during menstruation is known today to be a safe, low-tech method for enhancing a couple's fertility.

Paul, one of the foremost Torah scholars of his day, suggested this cyclical pattern: "Do not deprive one another [of sexual contact] except with consent for a time [during the wife's menstrual cycle], that you may give yourselves to fasting and prayer; and come together again so that Satan does not tempt you because of your lack of self-control." (I Corinthians 7:5) We can only imagine how different the attitude and walk (and *love life*, for that matter) of the average young Christian husband would be if he and his wife "gave themselves to fasting and prayer" in place of sex for five or six days out of every month while God took care of the routine periodic maintenance chores on his wife's reproductive apparatus.

The CDC reports (2011) that the rates of STDs are generally increasing, especially among adolescents and young adults. Sadly, it is a "given" that these statistics include very few in traditional marriages. Virtually all STDs, rather, are the result (at some point in the chain of transmission) of extramarital sex. "Estimates suggest that young people aged 15–24 years acquire nearly half of all new STDs. Compared with older adults, sexually active adolescents aged 15-19 years and young adults aged 20–24 years are at higher risk of acquiring STDs for a combination of behavioral, biological, and cultural reasons.... The higher prevalence of STDs among adolescents also may reflect multiple barriers to accessing quality STD prevention services, including lack of health insurance or ability to pay, lack of transportation, discomfort with facilities and services designed for adults, and concerns about confidentiality." Gee, kids, you've managed to catch grown-up diseases. Maybe it's time to grow up a little yourselves. "Traditionally, intervention efforts have targeted individual-level factors associated with STD risk which do not address higher-level factors (e.g., peer norms and media influences) that may also influence behaviors. Interventions for at-risk adolescents and young adults that address underlying aspects of the social and cultural conditions that affect sexual risk-taking behaviors are needed, as are strategies designed to improve the underlying social conditions themselves."

I don't know which saddens me more: the fact that children as young as fifteen are routinely contracting STDs, that our prevailing "social and cultural conditions" encourage "sexual risk-taking behaviors," or that the CDC (or any other "authority figure") has nary a clue as to why this is happening or what to do about it. The real underlying cause of the increase in STDs is not "behavioral, biological, or cultural." It's not even moral, exactly. It's *spiritual*. The past two or three generations in this country have been unrelentingly taught that "man is his own god," that "you're only an animal," and "if it feels good, do it." And then our government is *shocked* when social diseases run rampant. The best advice they can conjure up is "wear a condom." But if someone at the CDC were to publically recommend that people should remain virgins until marriage, and then remain

faithful and sexually exclusive for their whole lifetimes, he'd no doubt be fired on the spot, branded as some sort of hysterical religious bigot.

So here are the CDC's findings: "*Chlamydia*: Rates of reported chlamydial infection among persons aged 15–19 years and 20–24 years continue to increase. During 2010–2011, rates increased 4.0% for those aged 15–19 years and 11.0% for those aged 20–24 years.... *Gonorrhea*: During 2010–2011, gonorrhea rates remained essentially unchanged for persons aged 15–19 years (decreased 0.1%) and increased for persons aged 20–24 years (5.8%).... *Syphilis*: rates among women aged 15–19 years increased annually during 2004–2009, from 1.5 cases per 100,000 females to 3.3 cases in 2009, but decreased to 2.9 cases in 2010 and 2.4 cases in 2011."

And what about AIDS or HIV—the STD that has been getting the lion's share of the media attention and research money for the past twenty years? "HIV and AIDS remain a persistent problem for the United States and countries around the world. While great progress has been made in preventing and treating HIV, there is still much to do.... About 50,000 people get infected with HIV each year. In 2010, there were around 47,500 new HIV infections in the United States.... If we look at HIV infection by race and ethnicity, we see that African Americans are most affected by HIV. In 2010, African Americans made up only 12% of the US population, but had 44% of all new HIV infections. Additionally, Hispanic-Latinos are also strongly affected, making up 17% of the US population, but had 21% of all new HIV infections. If we look at HIV infections by how people got the virus (transmission category), we see that men who have sex with men (MSM) are most at risk. In 2010, MSM had 63% of all new HIV infections, even though they made up around 2% of the population. Individuals infected through heterosexual sex made up 25% of all new HIV infections in 2010." That last statistic, of course, doesn't factor in the participants' previous sexual liaisons. Gay men aren't always exclusively homosexual.

Let those statistics sink in. Although the LGBT (lesbian, gay, bisexual, transgender) lobby would like you to believe that one person in every four shares their perverted proclivities, the real number totals out to about 3.5%, and (as the CDC reported above) the number of homosexual *men* is only about 2% of the population. That means that AIDS is still—after all these years—still spread primarily by men having sex with other men: over *thirty times* more frequently than what their statistical demographic would indicate. Why, then, do they rail against God, who warned them, saying, **"You shall not lie with a male as with a woman. It is an abomination."** They have no one to blame but themselves for spreading the curse of AIDS. What was it Solomon said? **"Reproof is more effective for a wise man than a hundred blows on a fool."** (Proverbs 17:10)

So the CDC reminds us, "In the United States, about 15,500 people with AIDS died in 2010. HIV disease remains a significant cause of death for certain populations. To date, more than 635,000 individuals with AIDS in the United States have died." And beyond our borders? "HIV disease continues to be a serious health issue for parts of the world. Worldwide, there were about 2.5 million new cases of HIV in 2011. About 34.2 million people are living with HIV around the world. In 2010, there were about 1.8 million deaths in persons with AIDS, and nearly 30 million people with AIDS have died worldwide since the epidemic began. Even though Sub-Saharan Africa bears the biggest burden of HIV/AIDS, countries in South and Southeast Asia, Eastern Europe and Central Asia, and those in Latin America are significantly affected by HIV and AIDS."

The world spends between 8 and 10 billion dollars per year on AIDS research, when any idiot knows that it is 100% preventable—just don't have sex with people (*especially* homosexual men) who have the HIV virus. But as I said, they're looking for that magic bullet, that miracle pill, that can take all the risk out of what appears to be suicidal sexual behavior. Call me unsympathetic, but it seems to me there's nothing particularly "gay" about harboring a death wish.

Ironically, a report published on *WhyDontYouTryThis.com* claims that "Scientists at the Washington University School of Medicine in St. Louis found that melittin, a toxin found in bee venom, physically destroys the HIV virus, a breakthrough that could potentially lead to drugs that are immune to HIV resistance." Why is that ironic? Because (1) bees, as we noted previously, are becoming an increasingly endangered species. (2) It's a natural cure, one with which the drug companies would have a hard time making a killing (so to speak). And (3) the bee-cure researchers state, "Melittin-loaded nanoparticles are well-suited for use as topical *vaginal* HIV virucidal agents." Apparently, they didn't get the memo about the vast majority of HIV infection being spread by men having sex with other men.

A CDC "fact sheet" (February 2013) summarized the extent of the sexually transmitted infection problem in the United States. "CDC's new estimates show that there are about 20 million new infections in the United States each year [that's *one person in sixteen*], costing the American healthcare system nearly \$16 billion in direct medical costs alone. America's youth shoulder a substantial burden of these infections. CDC estimates that half of all new STIs in the country occur among young men and women (up to age 24). In addition, CDC published an overall estimate of the number of prevalent STIs in the nation. Prevalence is the total number of new and existing infections at a given time. CDC's new data suggest that there are more than 110 million total STIs among men and women across the nation." Don't let that last statistic escape unnoticed: *one out of every* 

*three people* living in America is walking around with one or more sexually transmitted diseases!

Remember our discussion of treatment-resistant multiresistant bacteria strains? Some of these "superbugs" are venereal diseases. *Fox News* (September 16, 2013) reported, "Antibiotic-resistant gonorrhea, a diarrhea-causing superbug, and a class of fast-growing killer bacteria dubbed a 'nightmare,' were classified as urgent public-health threats in the United States on Monday. According to a new report by the U.S. Centers for Disease Control and Prevention (CDC), at least 2 million people in the United States develop serious bacterial infections that are resistant to one or more types of antibiotics each year, and at least 23,000 die from the infections...."

When antibiotics like penicillin first became available, they were quite effective against STDs like syphilis and gonorrhea. But now that mankind's vigilance has dropped to the same level as our morals, we find ourselves in trouble once again. "Overprescribing of antibiotics is a chief cause of antibiotic resistance, affording pathogens the opportunity to outwit the drugs used to treat them. Only a handful of new antibiotics have been developed and brought to market in the past few decades, and only a few companies are working on drugs to replace them. In addition to resistant gonorrhea, the others now seen as urgent threats, according to the first-of-its-kind report released on Monday, are *C. difficile* [*Clostridium difficile*] and the killer class known as *carbapenem-resistant Enterobacteriaceae*, or CRE....

"Last March the chief medical officer for England said antibiotic resistance poses a 'catastrophic health threat.' That followed a report last year from the World Health Organization that found a 'superbug' strain of gonorrhea had spread to several European countries...."

The article discusses the dangers of *C.difficile* and CRE, and then goes on to enumerate the specific menace of "the third 'urgent' threat in the report…drug-resistant *Neisseria* gonorrhea, which causes 246,000 U.S. cases of the sexually transmitted disease gonorrhea each year. Gonorrhea is increasingly becoming resistant to tetracycline, cefixime, ceftriaxone and azithromycin—formerly the most successful treatments for the disease. Gonorrhea is especially troublesome because it is easily spread, and infections are easily missed. In the United States, there are approximately 300,000 reported cases [322,000 in 2011, making it the second most commonly reported notifiable infection in the nation—*NBC*], but because infected people often have no symptoms the CDC estimates the actual number of cases is closer to 820,000. If left untreated, gonorrhea can lead to pelvic inflammatory disease, ectopic pregnancy, stillbirths, severe eye infections in babies and infertility in men and women.

"Not surprisingly, [the report] underscores the need for new antibiotics, citing ever-slowing development efforts by pharmaceutical companies due to the high cost of such programs and relatively low profit margins of the drugs." Yes, unfortunately, it's *not* surprising. What would have been surprising is if they had recommended exercising a little sexual responsibility, a little *self control*.

Reporting on the same story, *NBC News* added, "The CDC report points out, there aren't any new antibiotics in the immediate works that will kill any of these bugs. So patients may have to be treated with older, more toxic drugs, or with cocktails of antibiotics that may cause side-effects.... Gonorrhea may not be immediately life-threatening, but it's developing resistance to the drugs that used to easily treat it. Patients can be left infertile, and in January, Canadian researchers reported that seven percent of patients *weren't* cured by the only pill left to treat gonorrhea." The whole issue also makes one other fact glaringly obvious: drug companies are *not* in business to cure disease, but to make money. That is their right, of course: no sane person would suggest that they aren't entitled to earn a living. But we should never forget that profit—not health—is their driving motivation. It affects everything they do.

Here, then, are the basic facts: (1) In the United States (and perhaps worldwide, though accurate statistics are harder to come by) *one third* of the entire adult populace has (or has had) one or more sexually transmitted infections. (2) The moral/spiritual condition of the vast majority of mankind is not conducive to either lifelong marriage or sexual abstinence: promiscuity is the "new normal." (3) The drugs once relied upon to cure these diseases are no longer effective (or *as* effective) as they used to be half a century ago.

So the seemingly "hopeful" prognostication of the *World Health Organization* concerning what can be expected to kill us off in the fourth decade of the twenty-first century can be misleading: "Large declines in mortality between 2004 and 2030 are projected for all of the principal communicable, maternal, perinatal and nutritional causes, including HIV/AIDS, TB and malaria. Global HIV/AIDS deaths are projected to rise from 2.2 million in 2008 to a maximum of 2.4 million in 2012, and then to decline to 1.2 million in 2030, under a baseline scenario that assumes that coverage with antiretroviral drugs continues to rise at current rates. Overall, noncommunicable conditions [i.e., cancer, heart disease, etc.] are projected to account for just over three quarters of all deaths in 2030." We're all going to die, of course. The question is, "From what?"

Why is this misleading? Because most sexually transmitted diseases don't kill you outright. They merely make your life miserable, unfruitful, and unproductive. Instead of being part of the solution, a person with an untreated STD eventually becomes a drag on society, requiring more and more "symptom management" as the disease progresses. And getting "treatment," as we have seen, is getting harder by the day, as the arsenal of drugs becomes progressively more ineffective. The WHO's faith in antiretroviral drugs to treat AIDS is misplaced: they don't cure the disease—they merely make it possible for you to live with it a bit longer—a win-win scenario for the companies that manufacture these expensive drugs. Once again we must ask ourselves how much strain can humanity put on its own society before it breaks down altogether? What will happen when twenty percent of the populace is asked to carry the weight of the other eighty? Although there are (as we are learning) plenty of candidates for the job, STDs could easily become the proverbial "straw that breaks the camel's back." And by the fourth decade of the twenty-first century, sexually transmitted diseases could easily reach such epidemic proportions, finding an uninfected mate could prove to be next to impossible.

## Culturally-Inflicted Pestilence

Our "civilization" itself is the source of a whole range of ailments that are making our existence on this planet increasingly untenable. Some of these afflictions are psychological, some environmental, and some physical—but they all conspire to make humanity less able to function as we were intended in this world. We touched on a few of them in other contexts—factors such as air pollution and nutrient depletion. Cultures (and the challenges they present) vary from region to region, of course, so this section will be primarily concerned with the hazards of living in "developed" nations—places (like the U.S. and Western Europe) where we tend to presume that "life is good," even if it's not, simply because we don't have to get our water from a creek or share our living rooms with goats.

One of the most obvious "cultural pestilences" is obesity. It's a two-edged sword, for while our culture promotes an ideal of "thin at all costs," it's not *all* a style thing. The fact is, we *actually have* become fatter over the past half century. The *healthyliving.msn.com* website (Harvard Health Publications) asks, "What accounts for a worldwide epidemic of obesity? It's hard to understand how human genetics, hormone levels, or metabolic activity could change rapidly and simultaneously in millions of people, yet obesity has been increasing sharply throughout the industrialized world. In less than 40 years, the prevalence of obesity in the U.S. has increased by over 50 percent, so that *two of every three* American adults are now overweight or obese. Even worse, the obesity epidemic is rapidly spreading to our children.

"Diabetes, hypertension, and heart disease are the most obvious consequences of obesity, but other results range from cancer, arthritis, and depression to kidney stones, fatty liver disease, and erectile dysfunction. All in all, obesity and overweight account for nearly one of every 10 American deaths, and they also drain our society of \$223 billion a year [i.e., in health-related expense]." On the other hand, Americans spend over \$40 billion a year on diet products and self-help books. We spend \$2.6 billion annually on gym memberships (most of it wasted because we don't actually go). The fitness industry generates \$19 billion in business—gotta have the proper shoes, right? \$1.5 billion is spent in America every year on dietary supplements. Consumers in the U.S. spend over \$60 billion per year trying to lose weight—that's \$200 for every man, woman and child in the country. Diet pills and meal replacements are a \$3 billion market. We spend another billion dollars on diet food home delivery services like NutriSystem.

So why are so many of us still so fat? *Harvard Health* again: "Using data from the U.S. Bureau of Labor Statistics, researchers evaluated the relationship between physical activity in the workplace and obesity over the past several decades. In 1960, nearly half the jobs in the private sector required at least moderate physical activity, but in 2010, less than 20 percent demanded this much physical work. Advances in manufacturing and agriculture explain the drop in human energy needed at work. That's good news for a man's back, but not for his belly. In fact, the change in occupational energy expenditure means that the average American man is now burning 142 fewer calories each day than he did in the 1960s. That may not sound like much, but over the years, it adds up. Between 1960 and 1962, the average American man weighed 169 pounds, but during the 2003–2006 time period, he weighed 202 pounds. A decreased energy output of 142 calories a day can account for 28 of those extra 33 pounds. And another 2011 study, this one of 288,498 Europeans, found that inactivity packs on extra weight where it is most harmful, in the abdomen."

I can probably speak for half of America when I opine that computers are a big part of the obesity problem (not that I'd want to go back to working without one). Speaking strictly for myself, I'm not making any *progress* if I'm not sitting in this chair, either pounding away at the keyboard or prowling the Internet, my Bible software, or my library looking for clues to life's mysteries. Even back in the days when I earned my living as a graphic designer, most of my income was earned sitting down. There are any number of people who can relate.

"A decrease in physical activity at work would not lead to weight gain if it were counterbalanced by an increase in leisure-time exercise. Unfortunately, that hasn't happened; over the decades, the fraction of Americans who say they meet national guidelines for leisure-time exercise has remained stable at 25 percent — but objective measurements suggest the actual percentage of adults who get enough exercise is closer to 5 percent. And all you have to do to get the leisure-time exercise you need is to walk for 30 minutes a day. If people don't work out in their spare time, what do they do? They sit still; the average American, in fact,

spends 55 percent of his waking hours sitting down. And when Americans sit, they are often perched in front of a video display, either a workplace computer or a living room TV. Sedentary work is an inevitable byproduct of the Information Age, but TV watching is voluntary and optional—and it often involves watching seductive ads for junk foods just when snacks are close at hand." To be fair, of course, reading good books is just as sedentary an activity.

And then, there's the "calorie creep" factor. Simply stated, we eat more than we used to. "To find out how changing eating habits affect weight, researchers from the University of North Carolina evaluated data from four large national surveys that included 44,754 Americans ages 19 and above. The research covered a 30-year span from 1977 through 2006, during which time the national waistline continued to expand.

"The average daily caloric intake increased steadily during the study period, but the basis for the increase changed over time. During the first half, increasing portion sizes accounted for the lion's share of the caloric splurge. But in the 1990s, doctors and nutritionists sounded the alarm about the supersizing of American snacks and meals. The warnings seemed to work: starting in 1994, portion size stabilized and then dropped slightly. Food choices also appeared to improve a bit, since the consumption of calorie-rich foods dipped a bit in the 1990s. Was it a triumph for doctors and nutritionists? Sadly, it was not. Although the portion size and caloric density of the average American diet changed for the better, the improvements were very slight. Even worse, these small gains were more than offset by a new threat. Although the caloric content of individual meals and snacks stabilized, Americans began eating more often. Over the 30-year period, the average number of meals and snacks rose from 3.8 a day to 4.9 a day."

It all happened so gradually, nobody really saw it happening. We were all just going about our lives, chalking up our expanding waistlines to the passing of the years—the "new normal." "All in all, both portion size and eating frequency accounted for the rise in caloric intake; sugar-sweetened sodas made the single largest contribution to the caloric glut. Because the increases accrued slowly but steadily over 30 years, the annualized average calorie intake increased by 28 calories a day. That may not sound like much, but over three decades, it adds up to several notches on the typical guy's belt." A few paragraphs back, we learned that "the average American man is now burning 142 fewer calories each day than he did in the 1960s." Now we see that he's consuming 28 *more* calories—for a net gain of 170 calories—something it would take about half an hour of fast walking every day for the average guy to burn off.

I should also reiterate one factor from a previous chapter: perhaps one of the reasons we eat more (when given the chance) is that the nutritional content of our food has plummeted over the past half century. There are less vitamins and

minerals—by a wide margin—in any given carrot, apple, or slice of bread, than would have been there in times past, even though the calorie count has remained relatively constant. So it's entirely possible that we are subconsciously trying to make up for the deficit.

Another factor that has become increasingly significant during the past half century is leptin resistance. Nutrition guru J.J. Virgin, in her best-selling book *The Virgin Diet*, writes, "Inflammation...creates leptin resistance, which makes it even harder for you to lose weight. Leptin is a hormone that responds to how much you've eaten and signals the brain that you've had enough (*satiety* is the technical term). Leptin also helps burn fat by cueing your metabolism to run faster when you have extra fat to burn and slowing down your metabolism when your body needs to hold onto fat.... When leptin is working well, you eat until you don't need any more food and then you stop. When your system is leptinresistant, you have a lot of leptin circulating in your blood, but your brain can't 'hear' it.... As a result, [overweight people] experience increased hunger, food cravings and weight gain. Even though they're overweight, their bodies believe they're hungry and go into a state of fat storage."

Her recommendations for reducing leptin resistance and reducing inflammation include these four nutritional targets: (1) "Instead of consuming inflammatory fats from processed foods, corn, dairy, and eggs, switch to antiinflammatory fats from wild fish, raw nuts and seeds, and olive oil.... (2) Get rid of the sugar, artificial sweeteners and high-glycemic foods. Sweet and starchy foods raise blood sugar, which raises insulin, which leads to inflammation.... (3) Genetically modified organisms (GMOs)...can disrupt your healthy gut flora (intestinal bacteria), trigger an immune response and create inflammation.... (4) Let go of the top 7 high F1 foods, the ones most likely to cause an adverse reaction." These foods include gluten, soy, dairy, eggs, corn, peanuts, sugar, and artificial sweeteners.

Obesity is a growing problem not just in the West, but globally. The World Health Organization reports that "worldwide, obesity has nearly doubled since 1980. In 2008, more than 1.4 billion adults 20 and older were overweight. Of these, over 200 million men and nearly 300 million women were obese. 35% of adults aged 20 and over were overweight in 2008, and 11% were obese. 65% of the world's population live in countries where overweight and obesity kills more people than underweight. More than 40 million children under the age of five were overweight in 2011." Even in China, the most populous nation on earth, obesity has become an issue in the cities—where increasing prosperity has led to expanding waistlines. "Recent statistics have showed that the average waistline of Chinese urban males has gone from 63.5 cm in 1985 to 76.2 cm in 2012, growing by 20 percent over just 27 years."—*China.org.* 

What do people do when they finally decide to get serious about their obesity problem? They go on a diet. There are a thousand ways to do it, and a few of them actually work—for some people, anyway. Health considerations are one thing. The *cultural* impetus, on the other hand, works out like this: since people who *look* healthy are more sexually attractive, most people calculate (consciously or unconsciously) that they if they look better, they'll get more sex, all things considered. (That's why guys reflexively suck in their guts when a pretty woman walks by—it's practically automatic.) Taken to extremes, however, obsession with self image and body weight can lead to destructive eating disorders.

The sex drive is part of human nature, of course. It keeps the species viable. God intended it to be channeled through marriage and family, but sadly, since temporary liaisons have become the norm (replacing lifelong marriage commitments), "looking for love (in all the wrong places)" has become a constant avocation for many people. Furthermore, since obesity is universally acknowledged to be unhealthful today, it has taken on the cultural connotation of being unattractive (read: "un-sexy"). Therefore, the goal in modern society is to become healthy, or more to the point, *look* healthy. (It's funny how perception changes. A couple of thousand years ago, being fat meant you were wealthy and lived a life of leisure—hence you were by definition "attractive" and "admired." The only guys with "six-pack abs" were slaves and common laborers.)

Being healthy is a good thing, of course. Our *neshamah*-equipped bodies are designed to be the temples of the Holy Spirit—a mind-blowing concept if you stop and think about it—so it makes sense to take care of them and treat them with respect, just as with any valuable gift. But our obsession with being thin—whether or not that's an accurate reflection of our health status—began to be manifested in what are called "eating disorders," mental illnesses in which people become preoccupied with food and its effect on our bodies. Nutrition, taste, energy, health—all of these things take a back seat to the fact that food is, in the end, what makes a fat person fat: it is deemed *the enemy*. The supposed excesses of obesity are thus traded for completely different excesses: strategies designed to make one thin, whatever the cost, whatever the consequences.

Image issues—skewed perceptions of what the ideal person looks like, no matter how unrealistic—often play a part. But in truth, that's an oversimplification. In some cases, logic and purpose have nothing to do with it: there is a complicated dynamic between eating disorders and other types of psychological dysfunction—PTSD, sexual trauma, personality disorders, substance abuse, anxiety, and impulse control issues.

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*Wikipedia* defines the three most prominent types of eating disorder:

(1) "*Anorexia nervosa* is an eating disorder characterized by immoderate food restriction and irrational fear of gaining weight, as well as a distorted body selfperception. It typically involves excessive weight loss and occurs far more often in females than in males. Because of the fear of gaining weight, people with this disorder restrict the amount of food they consume. This restriction of food intake causes metabolic and hormonal disorders.... Patients suffering from anorexia nervosa may experience dizziness, headaches, drowsiness and a lack of energy." The word anorexia means "loss of appetite," but that's not strictly true in the case of this malady. Hunger is still present, but it is suppressed by the sufferer. The condition actually presents as compulsive fasting, driven by skewed image issues—a feeling that she (there are ten times as many anorexic women as there are men) is fatter than she really is, even if she is actually underweight. Anorexia has the highest fatality rate of any mental illness—as many as four percent of anorexic individuals die from complications of the disease.

(2) "Bulimia nervosa is an eating disorder characterized by binge eating and purging, or consuming a large amount of food in a short amount of time followed by an attempt to rid oneself of the food consumed (purging), typically by vomiting, taking a laxative, diuretic, or stimulant, and/or excessive exercise, because of an extensive concern for body weight.... Bulimia is also commonly accompanied with fasting over an extended period of time. These dangerous, habit-forming practices occur while the sufferer is trying to keep their weight under a self-imposed threshold. It can lead to potassium loss and health deterioration, with depressive symptoms that are often severe and lead to a high risk of suicide. Bulimia nervosa is considered to be less life threatening than anorexia; however, the occurrence of bulimia nervosa is higher...." As many as 4% of women will develop the condition sometimes during their lives, but only 6% of *them* will seek treatment.

"Patients with bulimia nervosa often have impulsive behaviors involving overspending and sexual behaviors as well as having family histories of alcohol and substance abuse, mood and eating disorders. The overwhelming majority (90– 95 percent) of individuals with bulimia are women.... Among women, adolescents are the most at risk. A survey of 496 adolescent girls reported that more than 12 percent experienced some form of eating disorder by the time they were 20. Anorexia and bulimia are the most culturally specific psychological disorders yet identified, and for many young women, looking good for their social life is much more important than being healthy. Self-worth, happiness, and success are largely determined by body measurements and percentage of body fat for young women. Over the years the size and weight of the average woman has increased with improved nutrition, but there has also been an increased message from the media to be thin. The media projects a thin ideal rather than a healthy ideal, and this causes women and young girls to work toward having a thin body even if it means purging."

(3) "*Binge eating disorder* (BED) is the most common discrete eating disorder in the United States, affecting 3.5% of females and 2% of males, and is prevalent in up to 30% of those seeking weight loss treatment.... BED is frequently comorbid with obesity, although it can occur in normal weight individuals. There may be a genetic inheritance factor involved in BED independent of other obesity risks, and there is also a higher incidence of psychiatric comorbidity, with the percentage of individuals with BED and an Axis I [i.e., psychological diagnostic categories other than mental retardation and personality disorder—including depression, anxiety disorders, bipolar disorder, ADHD, autism spectrum disorders, anorexia nervosa, bulimia nervosa, and schizophrenia] comorbid psychiatric disorder being 78.9%, and for those with subclinical BED, 63.6%."

In other words, binge eating is not the same as ordinary gluttony: it's an abnormal psychological compulsion. Those who binge eat often suffer from other common psychiatric disorders as well. 2.8 % of American adults will struggle with Binge Eating Disorder sometime during their lifetimes. But almost 43% of individuals suffering from BED will obtain treatment—the higher statistic most likely due to the fact that many are already being cared for by psychiatric professionals who spot the danger signs as they deal with their other problems.

*EatingDisorderHope.com* provides these statistics, revealing how pervasive the eating disorder problem has become, at least in America: "Eating disorders are a daily struggle for 10 million females and 1 million males in the United States. Four out of ten individuals have either personally experienced an eating disorder or know someone who has." So although only about a third of one percent of the populace is laboring under an eating disorder at any given time, *forty* percent of the population is, to one extent or another, bogged down dealing with the disorder. The question—one I've asked before—is, how many people can be forced into the role of caregiver before the whole system breaks down? I'm told that the Viet Cong discovered that if you kill an American soldier you've taken *one man* out of the fight; but if you merely *disable* him, you remove him *plus* four of his comrades in arms—in addition to sucking up untold resources behind the scenes. *That's* how you defeat an enemy fifty times your strength.

Anyway, "Over a lifetime, the following percentages of women and men will experience an eating disorder. Female eating disorder prevalence rates: 0.9% of women will struggle with anorexia in their lifetime, 1.5% of women with bulimia, and 3.5% with binge eating. Male eating disorder statistics: 0.3% of men will struggle with anorexia, 0.5% with bulimia, and 2% with binge eating disorder.

"Prevalence rates of eating disorders in adolescents/students: The National Institute of Mental Health reports that 2.7% of teens, ages 13-18 years old, struggle with an eating disorder.... 50% of teenage girls and 30% of teenage boys use unhealthy weight control behaviors such as skipping meals, fasting, smoking cigarettes, vomiting, and taking laxatives to control their weight. 25% of collegeaged women engage in bingeing and purging as a method of managing their weight.

"Prevalence of eating disorders among athletes: 13.5% of athletes have subclinical to clinical eating disorders. 42% of female athletes competing in aesthetic sports [e.g. dancing or figure skating] demonstrated eating disordered behaviors.

"Dieting statistics and prevalence: Over 50% of teenage girls and 33% of teenage boys are using restrictive measures to lose weight at any given time. 46% of 9-11 year-olds are sometimes, or very often, on diets, and 82% of their families are sometimes, or very often, on diets). 91% of women recently surveyed on a college campus had attempted to control their weight through dieting, 22% dieted often or always. 95% of all dieters will regain their lost weight in 1-5 years. 35% of normal dieters progress to pathological dieting. Of those, 20-25% progress to partial or full-syndrome eating disorders. 25% of American men and 45% of American women are on a diet on any given day."

In a perfect world, the only "eating disorder" would be over-doing it a bit when you gathered at special times with your friends and family to celebrate Yahweh's love and provision. God Himself set aside three times a year when this sort of thing was something of a "given." The Feast of Unleavened Bread (the spring Passover celebration), the Feast of Weeks (seven weeks later), and the Feast of Tabernacles (the harvest festival in the fall) were times when the entire nation of Israel was to gather together and have a huge party—two of them lasting an entire week. Sacrifices of praise and thanksgiving to God were shared between the worshipers, Levites, and priests. These times—especially Tabernacles or *Sukkot*—practically begged for a bit of overindulgence. But the rest of the year, folks were expected to eat sensibly, work hard, and honor Yahweh in a somewhat—shall we say—*less enthusiastic* manner, as far as their eating habits were concerned.

In all of that, image perception, sex appeal, and fashion had nothing to do with how or what someone ate. In scripture, fasting is a companion of prayer, meditation, and repentance—not weight loss. (For that matter, fasting was never commanded in scripture—even on the Day of Atonement when "affliction of soul" was the order of the day, rabbinical extrapolation notwithstanding. It was something one did voluntarily, like taking a Nazirite vow, and if done in the right spirit, was seen as honoring to God. In the same way, observing the Levitical dietary rules (see Leviticus 11) wasn't done to control one's weight, but to demonstrate one's trust in our Creator's instruction—thousands of years before we had a clue as to *why* He had forbidden certain animals as food.

I suppose if you wanted to push the issue, you could say that any dietary practice that compromises the health of your body could be construed as an "eating disorder." That being said, most of us don't give our health a second thought when we sit down to eat. And maybe that's for the best. These days, it's practically impossible to know what's in your food unless you grew it yourself—and not too many of us can do that anymore. But dietolatry (i.e., "diet idolatry") comes in many forms: it could be avoiding (or purging) anything that you think might make you fatter than your super-model ideal (something known in the real world as "food"); but it could just as easily take the guise of the gourmet, glutton, health snob, cultural vegan (as opposed to the merely health conscious type), or junk food junkie. However we slice it, food makes for a poor deity. We are to have only one God—Yahweh. But we *are* to assimilate Him into our bodies: "Oh, taste and see that Yahweh is good!" (Psalm 34:8)

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When Christ told us we must "eat His flesh and drink His blood" if we wanted to have His life within us (John 6:53), the symbol He used implied something He *didn't* say (not there, anyway): nothing needs to be added to what God provides to make our spiritual sustenance complete. Thus Yahweh warned the people through Moses: "Whatever I command you, be careful to observe it; you shall not add to it nor take away from it." (Deuteronomy 12:32) And John, at the very end of the Bible, warned us in a similar vein not to add or subtract from God's perfect prophetic recipe: "For I testify to everyone who hears the words of the prophecy of this book: If anyone adds to these things, God will add to him the plagues that are written in this book; and if anyone takes away from the words of the book of this prophecy, God shall take away his part from the Book of Life, from the holy city, and from the things which are written in this book." (Revelation 22:18-19)

I mentioned a while back that I once designed food packages for a living. The ingredients lists were sometimes a real eye opener. The "health food" guys tended to have short lists, with short, pronounceable words in them, while some of the others read like a chemistry mid-term exam. The *DiscoveryHealth* website notes, "Oftentimes, you can look at the back of a food package and identify artificial ingredients, preservatives or some long name that doesn't exactly sound like food. But though they can spot them and know they aren't a healthy option, most people don't bother to seek these 'ingredients' out. In our culture, with such easy

access to food, it's easy to ignore the fact that most of the items we purchase in traditional supermarkets are processed and contain additives."

The "why" of it isn't terribly hard to figure out: "Man-made preservatives give food and cosmetics a longer shelf life, which allows manufacturers to bring in a bigger revenue. Additives are also used to preserve flavor and color. For centuries people have used salts, vinegars, herbs, boiling and refrigeration [i.e., ice] to naturally hold food items, but in the last 50 years man-made preservatives have become the common method.

"The most popular chemical additives in the food industry today are benzoates, nitrites, sulphites and sorbates. These additives kill and prevent molds and yeast from growing on food. Sulfur dioxide is the most common man-made preservative; it acts as a bleaching agent in food. There are more than 300 additives used today." But are these additives dangerous? "It is not uncommon for a food additive that was originally believed to be safe for consumers to later be found toxic. Some studies have found additives are a source of headaches, nausea, weakness and difficulty breathing. New research [source: Karen Lau] has shown that the mixture of additives and certain foods can damage human nerve cells. The truth is, we do not understand all of the long-term effects that additives could have on our health because man-made additives are a relatively new invention."

They list seven particularly dangerous food additives: food dyes; lead (found in juice drinks); BPA (Bisphenol A—a dangerous synthetic hormone found in 92% of all canned foods); Phthalates (another synthetic hormone found in canned foods); Palm oil (a highly saturated fat); MSG (monosodium glutamate, linked to hormonal imbalances, weight gain, brain damage, obesity, and headaches); and hidden trans fats.

*MedIndia.net* lists their top twelve most dangerous food additives. Not surprisingly, there are some conspicuous overlaps with the *Discovery Health* list:

(1) "Sodium nitrate: Sodium nitrate tops the list of dangerous food additives. It is highly toxic and stimulates the formation of nitrosamines which are highly carcinogenic (cancer causing) in nature. This deadly compound takes up a good portion of our processed meats, acting as a good preservative which prevents bacterial growth and fast decaying of meat. Skip the hot dogs and bologna and choose from organic chicken and lean meats." One statistical bombshell: children who eat over twelve hot dogs per month are *nine times* more likely to develop childhood leukemia—*University of California Medical School*.

(2) "*Trans fats:* Making up a considerable amount of our hamburgers, biscuits, chips and popcorns, Trans fats are responsible for triggering obesity and heart problems among millions of people around the globe. While saturated fats raise cholesterol levels, trans fats go a step further. They not only raise cholesterol

levels, but also deplete the amount of HDL (the good cholesterol) in your body, making you more susceptible to heart disorders.

(3) "*Olestra*: Olestra is the 'non-fat' fat, found in your potato chips, which is actually nothing but a fake fat. However, it is known to bind to fat soluble vitamins A, D, E and K, which protect the body from cancer and boost immunity. The binding of olestra to these vitamins in general makes you much more prone to cancer. Also, it has demonstrated digestive upset in 12% of population. Replace your packet of potato chips for a fruit or a few wholegrain biscuits.

(4) "*Propyl Gallate*: Propyl Gallate is a component of meat products, vegetable oils, potato sticks, chewing gum and ready-to-make soup mixes, which prevents them from spoiling, basically acting as a preservative. Studies, however, show that regular consumption of these products may cause colon and stomach cancer.

(5) "*Butylated hydroxyanisole:* Functionally similar to Propyl Gallate, Butylated hydroxyanisole is responsible for preventing oils and other food stuffs from going rancid. However, research shows they both play a major role in causing cancerous tumors in rats.

(6) "*Monosodium Glutamate:* Commonly known as Chinese salt, this compound features near the top of the list of dangerous food additives. Why? First, because MSG is now a part of almost everything you consume. This amino acid is used to flavor salads, soups and other food preparations and was typically used in Chinese food preparations. However, its use has now spread to the Eastern and Western areas, and by now, almost every restaurant or fast food joint literally coats their foods with MSG. Studies conducted on a number of rats showed that almost all of the rats taken under study reported a damaged hypothalamus (an important part of the brain concerned with regulatory activities of the body) and neurons of the inner retinal layer on just *one dose* of MSG. Also, MSG is used to lab-induce obesity among rats. What makes it far more dangerous is the fact that humans are 3-5 times more sensitive to MSG than rats." Because of its deservedly bad health reputation, MSG masquerades under several innocuous pseudonyms on ingredients lists: hydrolyzed protein, sodium casinate, autolyzed yeast or yeast extract, or even gelatin.

(7) "*Aspartame*: Responsible for causing brain tumor in rats, aspartame is an artificial sweetener—an alternative to sugar, used in low-cal diet foods. Overconsumption of these products is known to increase the susceptibility to lymphomas and luekemias. When it enters the body, aspartame converts to formaldehyde, and causes migraine, vision loss, seizures, multiple sclerosis and even Parkinson's disease. Short term side effects include headache and dizziness." It has also been linked to depression, irritability, phobias, severe PMS, hyperactivity in children, chronic fatigue syndrome, and fibroyagia.

(8) "*Potassium bromate:* Potassium bromate is an oxidizing agent used in the bread-making process. This compound has demonstrated carcinogenic effects and has also proven to be nephrotoxic (toxic to the kidneys) both in man and animals. It has developed thyroid and kidney tumors among rats when they were fed bread using potassium bromate as the oxidizing agent.

(9) "*Food coloring:* Blue #1 is responsible for causing cancer, whereas red #40 may lead to ADHD (attention deficit hyperactivity disorder) in children. Red #3, which is widely used in baking and giving artificial color to cherries, induces thyroid tumors in rats. Stay away from foods and drinks that look unnaturally colorful and bright." More on this in a bit.

(10) "*Butylated hydroxytoluene*: BHT is found in chewing gums, potato chips and other packaged foods as a preservative. In spite of being approved by the FDA, it has been proven to be cancer-causing, making it among the top 12 dangerous food additives. One simple way to avoid it is to check the label. Many brands do not use this preservative, so you can switch to using those brands of packaged foods." By the way, it's best to avoid Butylated hydroxyanisole (BHA) as well. For that matter, just skip whatever you can't say: it obviously doesn't belong on your tongue.

(11) "Acesulfame-K: A new sweetener which is now being used in various soft drinks and baked foods, Acesulfame-K, is actually 200 times sweeter than natural sugar, and is responsible for causing cancer among mice. Also, it affects the thyroid gland in other animals like rabbits and dogs.

(12) "*Chloropropanols:* This family of drugs is common in Asian food sauces like black bean, soy, and oyster sauce. Two specific substances within this category are known to be cancer producing and are banned in many countries.

My wife, who suffers from a whole range of really annoying autoimmune diseases, has her own personal "Additives-To-Avoid" list (in addition to those listed above): Azodicarbonamide (found in bread); recombinant bovine somatotropin (rBST) and recombinant bovine growth hormone (rBGH), found in dairy products; *anything* GMO—corn, soybeans, canola oil, etc.; sodium myreth sulfate, sodium laureth sulfate, ethylhexylglycerin, PEG (Polyethylene glycol), TEA (Triethanolamine), and ceteareth (all found in personal care products); carrageenan (a thickener)... and the list goes on. Basically, we try not to eat anything we can't pronounce.

If we're eating processed foods (and most of us do to some extent) we are by definition eating chemical additives that are not really food at all. Typical is the ubiquitous ingredient sulfur dioxide. *RawGuru.com* reports: "The process of preserving food with sulphur dioxide is intended to provide a longer shelf life, kill harmful bacteria that might grow on vegetation and foods, and help food products

maintain a certain visual appearance; however, it's also considered one of the top six air pollutants. Sulphur dioxide occurs naturally in volcanic gases, in some dissolved waters of warm springs, and is a result of coal, fuel, and gas combustion. It is not confined to a specific area as it travels long distances in a short amount of time. It is produced industrially as a bleach alternative, a reducing agent, and for sulfites (preservation). As it has no role in humans or mammalian biology, when introduced it inhibits specific nerve signals, restricts lung performance, and is a direct allergen—over 65% of asthmatic children are sensitive to SO<sub>2</sub> (World Health Organization, 1999), and it negatively affects over 70% of children with behavioral problems.

"Sulphur dioxide is used as a common sulphite that is added to dried fruit, fruit juices, fruit, breakfast cereals, and many processed snacks including cookies, soft drinks, meat, cereal bars, muesli bars, yogurt, ice cream, candy, frozen french fries, bread, margarine, and gluten-free flours. It is also used in the process of making wine, even wines that say 'no sulphites,' and is found in ingredients like vinegar, corn syrup, corn starch, maltodextrin, potato starch and flakes, beet sugar, bottled lemon juice flavor and dressings, and glucose syrup."

They have good reasons for using it, of course. "Sulphur dioxide is used as a preservative because it works as an antimicrobial preventing the growth of bacteria, mold, and fungus; an antioxidant preventing rancidity; and as a chemical that attacks enzymes that cause discoloration, ripening, and rotting, usually in fruits after harvest." So we're faced with a trade off: either eat chemicals with our food, or deal with shelf-life that's shorter than the attention span of a goldfish.

And what about the very first entry on *MedIndia's* list—sodium nitrate? Again, it is used as a way to greatly extend the shelf-life of certain meats ostensibly a good thing. But the Mayo Clinic reports, "Sodium nitrate, a preservative that's used in some processed meats such as bacon, jerky and luncheon meats, could increase your heart disease risk. Aside from the salt and saturated fat in these meats that can disrupt a heart-healthy diet, sodium nitrate also may harm your heart. [And, I might add, many of these processed meats are on Yahweh's 'Don't Eat' list in Leviticus 11.] It's thought that sodium nitrate may damage your blood vessels, making your arteries more likely to harden and narrow, leading to heart disease. Nitrates may also affect the way your body uses sugar, making you more likely to develop diabetes."

Staying away from dangerous food additives is not as easy as it looks. Take the case of carrageenan, a "food grade" ingredient made from red seaweed—a substance whose lobby has worked (and spent) hard to encourage us to accept as a "safe and natural food additive" because it does its job *so well*. It's in so many products these days, it'll make your head swim. *WholeGreenLove.com* (April 7, 2013) reveals, "It is not used for nutritional value, flavor, or color, but is instead used in many products as a thickener, giving food a fattier texture or sensation on your palate, imitating a thick, rich, full-fat food option.... It is also used as a stabilizer, so it creates an even texture and consistency throughout the entire product. (An example would be a beverage with particles that naturally separate. Instead of having to shake it to reincorporate it, it just stays evenly mixed."

Carrageenan is found is all sorts of things: "Dairy: ice cream, chocolate milk, sour cream, cottage cheese, whipping cream, squeezable yogurts.... Dairy alternatives: soy milk, hemp milk, almond milk, coconut milk, a good majority of the previously listed alternative products i.e. soy yogurt, pudding, ice cream etc.... Meats: Prepared chicken products, and sliced turkey.... Nutritional Drinks: Ensure<sup>TM</sup>, SlimFast<sup>TM</sup>, Carnation Breakfast Essentials<sup>TM</sup>, and Orgain<sup>TM</sup>.... Prepared Foods: microwaveable dinners, canned soups, broths, frozen pizza, even pet foods.

Okay, so it's ubiquitous, as well as being useful. But what's *wrong* with it? "The way carrageenan is chemically structured triggers an autoimmune response. Autoimmune responses lead to inflammation within the body." Yeah, I think we've danced to this tune before. "The inflammation has been noticed more specifically in the gastrointestinal system. Ranging from 'belly bloat,' to irritable bowel syndrome (IBS), to Irritable bowel disease (IBD). Prolonged inflammation within the body is a precursor to more serious health morbidity." Inflammation can and does lead to such conditions as rheumatoid arthritis, arteriosclerosis, and cancers. "There is concern by scientists that the acidity found within the stomach causes 'food grade' carrageenan to 'degrade,' which would expose your digestive system to a recognized carcinogen.... numerous studies have been published identifying carrageenan's unique chemical structure and how it triggers an immune response in the body, which is similar to the effects of pathogenic bacteria like Salmonella."

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Another insidious "additive" to many people's dietary environment in the U.S. is the fluoride that has been added to many municipal water supplies since the 1940s. There has been a raging controversy from the very beginning about the practice's purpose, implementation, ethics, and efficacy, ranging from "You all need this stuff to ward off tooth decay" to "It's a Communist plot—they're out to get us." Dr. Paul Connett, writing for *FluorideAlert.org*, lists fifty reasons to oppose fluoridation—while pointing out that neither extreme of the argument is accurate. I'll refrain from quoting the whole list, but merely report the factors that stood out to me:

Fluoride is the only chemical added to water for the purpose of medical treatment, but it is done without anyone's informed consent—a key reason why many European nations have ceased the practice. The dose cannot be controlled, since people don't drink the same amount of water, nor can the "patient's" need or vulnerability be individually assessed. Even if fluoride is efficacious is warding off tooth decay (something still being debated) other sources of dietary fluoride are now available. It is not an essential nutrient like vitamins or minerals are: no disease (even tooth decay) is *caused* by "fluoride deficiency." Worse, fluoride tends to accumulate in a person's bones over his entire lifetime.

Furthermore, no one is monitoring fluoride exposure for side effects. In fact, there has never been a single randomized controlled trial to demonstrate (or disprove) its efficacy or safety. Statistically, fluoride is not necessary to control tooth decay. In fact, tooth decay rates remain high in "low-income" communities that have been fluoridated for years, and the rate of dental disease does not rise when fluoridation is halted. While the rate of dental problems has declined in "fluoridated" countries like the U.S. and Ireland, it has also declined—and to a much greater degree—in "non-fluoridated" nations like Iceland, Italy, and Japan. (In other words, simple dental hygiene and improved diet are enough to fix the problem.)

Can fluoride actually cause harm? Perhaps. Its efficacy (if it exists at all) is as a *topical* treatment: there is nothing to be gained by ingesting the substance. Dental fluorosis is a discoloring of tooth enamel caused by too much fluoride in the diet—especially before the teeth erupt. Because there is so much more fluoride in tap water than in breast milk, bottle-fed babies are receiving far too much fluoride for their body weight. There is also some evidence that as fluoride builds up in the bones over time, causing skeletal fluorosis, a bone disease marked by rheumatic attack, pain, stiffness, and damage to bones and joints. The incidence of bone fractures, especially hip fractures in the elderly, is statistically higher in subjects with lifelong fluoride exposure. According to animal experiments, excessive fluoride may also cause brain damage, learning disabilities, lower I.Q., impaired visual-spatial organization, and behavioral issues. Some studies have linked fluoride consumption to impaired thyroid and pineal gland function, the early onset of puberty, impaired kidney function, and arthritic symptoms. Animal studies have proved that high concentrations of fluoride play havoc with the male reproductive system, damaging sperm and increasing the rate of infertility. It may even be a factor in bone cancer (osteoscarcoma).

So if the Commies were really that smart, they *would* have pushed fluoride onto the American populace. Of course, that's like saying we introduced vodka and atheistic Marxism to the Russians in order to destroy their society. The effect doesn't necessarily prove the cause.

And speaking of teeth, risk, and statistics, there is one very common dental procedure—performed twenty-five million times annually in the United States—that bears a shocking statistical correlation. It turns out that 97% of terminally ill cancer patients in this country have had root canals sometime in their past. That, if you ask me, seems well beyond the realm of coincidence. Dr. Joseph Mercola, writing for *Realfarmacy.com*, explains: "Root-canaled teeth are essentially 'dead' teeth that can become silent incubators for highly toxic anaerobic bacteria that can, under certain conditions, make their way into your bloodstream to cause a number of serious medical conditions—many not appearing until decades later. Most of these toxic teeth feel and look fine for many years, which make their role in systemic disease even harder to trace back. Sadly, the vast majority of dentists are oblivious to the serious potential health risks they are exposing their patients to, risks that persist for the rest of their patients' lives. The American Dental Association claims root canals have been proven safe, but they have NO published data or actual research to substantiate this claim."

How does a root canal procedure compromise your body's health? "Your teeth are made of the hardest substances in your body. In the middle of each tooth is the pulp chamber, a soft living inner structure that houses blood vessels and nerves. Surrounding the pulp chamber is the dentin, which is made of living cells that secrete a hard mineral substance. The outermost and hardest layer of your tooth is the white enamel, which encases the dentin. The roots of each tooth descend into your jawbone and are held in place by the periodontal ligament. In dental school, dentists are taught that each tooth has one to four major canals. However, there are accessory canals that are never mentioned. *Literally miles of them!* Just as your body has large blood vessels that branch down into very small capillaries, each of your teeth has a maze of very tiny tubules that, if stretched out, would extend for three miles.... Microscopic organisms regularly move in and around these tubules, like gophers in underground tunnels.

"When a dentist performs a root canal, he or she hollows out the tooth, then fills the hollow chamber with a substance (called guttapercha), which cuts off the tooth from its blood supply, so fluid can no longer circulate through the tooth. But the maze of tiny tubules remains. And bacteria, cut off from their food supply, hide out in these tunnels where they are remarkably safe from antibiotics and your own body's immune defenses.... Under the stresses of oxygen and nutrient deprivation, these formerly friendly organisms morph into stronger, more virulent anaerobes that produce a variety of potent toxins. What were once ordinary, friendly oral bacteria mutate into highly toxic pathogens lurking in the tubules of the dead tooth, just awaiting an opportunity to spread. "No amount of sterilization has been found effective in reaching these tubules—and just about every single root-canaled tooth has been found colonized by these bacteria, especially around the apex and in the periodontal ligament. Oftentimes, the infection extends down into the jawbone where it creates cavitations—areas of necrotic tissue in the jawbone itself. Cavitations are areas of unhealed bone, often accompanied by pockets of infected tissue and gangrene. Sometimes they form after a tooth extraction (such as a wisdom tooth extraction), but they can also follow a root canal. According to Weston Price Foundation, in the records of 5,000 surgical cavitation cleanings, only *two* were found healed. And all of this occurs with few, if any, accompanying symptoms. So you may have an abscessed dead tooth and not know it.

"As long as your immune system remains strong, any bacteria that stray away from the infected tooth are captured and destroyed. But once your immune system is weakened by something like an accident or illness or other trauma, your immune system may be unable to keep the infection in check.... Nearly every chronic degenerative disease has been linked with root canals, including: heart disease, kidney disease, arthritis, joint, and rheumatic diseases, neurological diseases (including ALS and MS), autoimmune diseases (Lupus and more).

"There may also be a cancer connection. Dr. Robert Jones, a researcher of the relationship between root canals and breast cancer, found an extremely high correlation between root canals and breast cancer. He claims to have found the following correlations in a five-year study of 300 breast cancer cases: 93 percent of women with breast cancer had root canals; 7 percent had other oral pathology; Tumors, in the majority of cases, occurred on the same side of the body as the root canal(s) or other oral pathology."

Instead of having a traditional root canal, Dr. Mercola recommends removing the tooth entirely and replacing it with a partial denture, bridge, or dental implant, but beyond that, also extracting the periodontal ligament along with one millimeter of the bony socket—breeding grounds for deadly bacteria that have the ability to compromise or overrun our bodies' immune systems.

My function is not to give medical advice, but merely to point out that the cultural pestilences that afflict us in these last days can be caused or exacerbated by the most common and ostensibly benign practices. Over the past century or so, our civilization has been introducing one factor after another that stealthily eats away at our bodies' ability to heal themselves as God designed them to do. With 41,000 root canals being performed every day in this country alone, how long can we continue before the sick outnumber and overwhelm the caregivers?

What about the dyes and colorants added to the foods we eat? This is another item that seems to appear on everybody's no-no list. *Forbes.com* gives us the scoop: "For centuries, people and companies used dyes derived from natural

ingredients to color food. But many of these natural colors contained toxins such as mercury, copper and arsenic. Around the turn of the 20th century, scientists began formulating synthetic colors, derived from coal tar, to replace the existing toxic natural ones. Unfortunately, these synthetic alternatives have proven to have their own slew of problems.

"In 1906, the Pure Food and Drugs Act (a.k.a. the 'Wiley Act') instituted the first restrictions on color additives in the United States. In general terms, the law banned artificial colors that proved 'injurious to health,' and the government hired chemist Dr. Bernard Hesse to investigate which of the existing 80 dyes being used in foods were safe enough to keep legal. The next three decades saw a process of eliminating colors that caused recurrent adverse health effects in the public. By 1938, only 15 synthetic colors were still legal, and those were subsequently divided into three categories: those suitable for foods, drugs, and cosmetics; those suitable only for drugs and cosmetics; and those suitable only for cosmetics.

"Today only seven colors remain on the FDA's approved list. Almost every decade, another coal tar issue surfaces, eliminating more and more of the artificial additives in America. For example, after Halloween in 1950, the government banned Orange #1 when many children became ill after consumption. In the 1970s, scientific testing pointed to Red #2's potential carcinogenic properties (caused intestinal tumors in rats), and it too was banned. Yellows #1, #2, #3, and #4 are among the others that have since been made illegal, and Yellow #5 is currently undergoing further testing for links to hyperactivity, anxiety, migraines and cancer (the color has already been banned in many European countries).

"The link between artificial colors and behavioral problems is a concern, especially for parents of children diagnosed with ADHD. But conflicting results from studies among scientists explains why there are still seven approved colors in the United States. The CSPI (Center for Science in the Public Interest), a nonprofit watchdog group, continues to push to ban the existing dyes, or at least apply warning labels on products that contain them, like the E.U. does for six. After a study in 2007 at the University of Southampton, the six dyes that came to be known as the "Southampton Six" were linked to hyperactivity in children, and now require warning labels in the E.U. The FDA, however, is not so convinced that such measures are necessary."

Considering the role the FDA plays these days, however—that of protector of big agribusiness political contributors above all else—it seems that "necessary" warnings are reserved for when people begin falling over dead in the streets—not "necessarily" when prudence would suggest consumer caution. It took the government *decades* to admit the health risks of tobacco use, and they still didn't ban it (they'd learned *that* lesson with alcohol back during Prohibition). They waited as long as they could (1964), when they were faced with a growing

mountain of evidence. They then slapped a warning label on it, regulated it state by state, and taxed it within an inch of its life (not that I'm sorry I don't have to breathe in somebody else's second-hand smoke every time I go out anymore).

Once again, I'm not trying to alarm you, or even suggest that you change the way you eat in hopes of staving off disaster. (Disaster is on its way, no matter what you do.) I only want to awaken you to the fact that the hour may be later than you think. The "deck" is stacked against the human race: the prospects for our long term survival look less likely with every new revelation. Even when our "benefactors" try to get it right (and I truly believe that the agribusiness people, politicians, and medical professionals *mean* well), they somehow end up getting it wrong. It's not just food additives: no matter what direction you look, no matter what area of common human experience you examine, the track we're on seems destined for a colossal train wreck not too far down the line. There is hope—even assurance of deliverance—but it lies *not* in fixing what's wrong with our world, but in letting God rebuilt it to His own perfect standards. I'm afraid we don't even know what that looks like anymore.

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We couldn't leave the subject of "culturally inflicted disease" without touching on the issue of illicit drugs—*voluntary* pestilence designed to alter one's connection with the world in which he lives. The breadth of the subject varies, depending on how "strict" you are: we could begin with caffeine in coffee, tea, or soft drinks. Alcohol abuse has been a perennial problem since man learned how to brew beer (three days after he discovered fire). Legal prescription drugs are not always used according to what's prescribed by the doctor. We could discuss performance enhancers (steroids, etc.), nicotine in cigarettes, or even explore "natural" drugs like endorphins and adrenaline. But for our purposes here, I'm going to be concentrating on the sort of "drug abuse" that's become endemic over the past century or so—the kinds of substances that are *calculated* to make people a danger to themselves or others.

Believe it or not, such drug use is mentioned—and condemned—in the Bible. For example, Paul writes, "Now the works of the flesh are evident, which are: adultery, fornication, uncleanness, lewdness, idolatry, sorcery, hatred, contentions, jealousies, outbursts of wrath, selfish ambitions, dissensions, heresies, envy, murders, drunkenness, revelries, and the like; of which I tell you beforehand, just as I also told you in time past, that those who practice such things will not inherit the kingdom of God." (Galatians 5:19-21) Did you catch it? It's not "drunkenness," as we might have guessed. It's the word translated "sorcery." The Greek word *pharmakeia* denotes "the use or administering of drugs; poisoning; sorcery, magical arts, often found in connection with idolatry and fostered by it." (*Strong's*) Zodhiates notes that the word connotes either a curative/medicinal drug or a poisonous one, and again ties the word's usage to the occult, sorcery, witchcraft, illicit pharmaceuticals, trances, and magical incantations with drugs. The *Dictionary of Biblical Languages* characterizes *pharmakon* (the related noun) as a "black magic potion."

As if to emphasize the role of drugs in the Last Days, the word is used twice (the only other scriptural instances) in the book of Revelation. In reference to the sixth trumpet judgment (i.e., toward the end of the Great Tribulation), John reports, "But the rest of mankind, who were not killed by these plagues, did not repent of the works of their hands, that they should not worship demons, and idols of gold, silver, brass, stone, and wood, which can neither see nor hear nor walk. And they did not repent of their murders or their sorceries [i.e., *pharmakon*—drug fueled idolatry] or their sexual immorality or their thefts." (Revelation 9:20-21)

The surprise comes in the context in which the final use of the word is found: "For your [i.e., commercial Babylon's] merchants were the great men of the earth, for by your sorcery [*pharmakon*—drugs] all the nations were deceived. And in her was found the blood of prophets and saints, and of all who were slain on the earth." (Revelation 18:23-24) The passage speaks not about overt idolatry or drug-fueled pagan orgies, but rather a worldwide system of commerce and industry—something so blatant and obvious in our world, we don't even see it. It's a big part of something code-worded "Babylon," the pervasive, systematic rejection of Yahweh's truth in favor of man-made counterfeits. (Two other "flavors" of "Babylon bouillabaisse" taken to task in scripture are religion and political-military pursuits—but they all smell pretty fishy.) Here we see a not-so-subtle warning against buying into the lie that there is (or should be) a "magic pill" (whether literal or figurative) to fix all of the world's ills.

The pharmaceutical industry is most certainly part of this, pushing pills and potions, vaccines, antibiotics, and false hope to people who aren't willing to trust God with their physical welfare. They pander to people desperate to cling to their fleeting youth, as if we aren't all destined to be dust. The industry plays both sides of the street. On the one hand, they make products designed to help a man achieve an erection without emotion, or enable a woman to look and feel sexually attractive long past her childbearing prime (both of which seem desirable when sex is divorced from marriage). Then they manufacture condoms and birth control pills to deal with the inevitable result—or failing that, provide tools and drugs designed to facilitate the abortions of tens of millions of unwanted and unloved children in the womb every year. There are big profits to be made in AIDS research and antiretroviral drugs, designed, of course, not to *cure* the self-inflicted disease, but merely to mask the symptoms, making it seem almost "okay" instead of the moral curse it actually is. It's all legal, socially acceptable, and very, very profitable. So the Bible identifies these merchants of death: they're not just inner

city gangsters, pimps and drug dealers; rather, they're hailed as the "great men of the earth," corporate giants who make a *literal* killing "deceiving all the nations."

This bit of semi-satirical fluff from *RealFarmacy.com* sort of says it all: "I took aspirin for the headache caused by the Zyrtec<sup>TM</sup> for the hay fever I got from the Relenza<sup>TM</sup> for the upset stomach and flu-like symptoms caused by the Viagra<sup>TM</sup> for the erectile dysfunction from the Propecia<sup>TM</sup> for the hair loss caused by the Ritalin<sup>TM</sup> for my short attention span caused by the Scopoderm TTS<sup>TM</sup> for the motion sickness that I got from the Lomotil<sup>TM</sup> for the diarrhea caused by the Xenical<sup>TM</sup> for the weight gain caused by the Paxil<sup>TM</sup> for the anxiety that I got from the Zocor<sup>TM</sup> that I'm taking for my high cholesterol because a good diet and exercise is *just too much trouble*."

But think beyond big pharma. They're only a symptom, a symbol, of what's really going on—the eternal quest for a "magic pill," a drug, a *pharmakon*, that will eliminate the desire or perceived need for a holy God. Note what John says about this permutation of Babylon: "In her was found the blood of prophets and saints, and of all who were slain on the earth." In their quest for power and profit, these people feel they must attack the only force that stands in their way: the saints (i.e., those set apart to Yahweh) and prophets (the spokespeople of the saints). In the end, God holds Babylon responsible for the blood of *all* of the earth's slain—both reprobate and the redeemed.

So for now, let's just concentrate on one dirty corner of this world—illicit drugs (whether the illegal sort, or those commonly prescribed and abused)— substances designed to mask the reality of life. The DEA (Drug Enforcement Administration) website (*Justice.gov*) lists the following as the main illicit drugs afflicting our culture today. Broken down by broad category, they are:

*Narcotics*: Heroin (a highly addictive, rapid acting drug processed from morphine, causing drowsiness, respiratory depression, constricted pupils, nausea, a warm flushing of the skin, dry mouth, and heavy extremities); Hydromorphone (an opioid with an analgesic potency two to eight times that of morphine, causing severe respiratory depression, drowsiness progressing to stupor or coma, lack of skeletal muscle tone, cold and clammy skin, constricted pupils, and reduction in blood pressure and heart rate); Methadone (a synthetic—man-made—narcotic, causing slow and shallow breathing, blue fingernails and lips, stomach spasms, clammy skin, convulsions, weak pulse, coma, and possible death); Morphine (a natural—plant based—narcotic, the principle constituent of opium, effective as a pain reliever, causing cold, clammy skin, lowered blood pressure, sleepiness, slowed breathing, slow pulse rate, coma, and possible death); Opium (a highly addictive narcotic extracted from the opium poppy, the *Papever somniferum*, causing slow breathing, seizures, dizziness, weakness, loss of consciousness, coma, and possible death); Oxycodone (a semi-synthetic narcotic analgesic normally prescribed for pain relief or sedation, causing extreme drowsiness, muscle weakness, confusion, cold and clammy skin, pinpoint pupils, shallow breathing, slow heart rate, fainting, coma, and possible death).

Stimulants: Amphetamine (a stimulant that speeds up the body's system, causing increased blood pressure and pulse rates, insomnia, loss of appetite, physical exhaustion, agitation, increased body temperature, hallucinations, convulsions, and possibly death); Cocaine, including base cocaine, or "crack" (an intense, euphoria-producing stimulant with a strong addiction potential, causing increased alertness and excitation, restlessness, irritability, anxiety, cardiac arrhythmias, ischemic heart conditions, sudden cardiac arrest, convulsions, strokes, and death); Khat (a flowering evergreen shrub abused for its stimulantlike effect, causing grandiose delusions, paranoia, nightmares, hallucinations, hyperactivity, loss of appetite, difficulty with breathing, and increases in both blood pressure and heart rate); Methamphetamine (a stimulant causing increased wakefulness, increased physical activity, decreased appetite, rapid breathing and heart rate, irregular heartbeat, increased blood pressure, and hyperthermiaoverheating. High doses can elevate body temperature to dangerous, sometimes lethal, levels, and cause convulsions and even cardiovascular collapse and death. Meth abuse may also cause extreme anorexia, memory loss, and severe dental problems).

*Depressants*: Barbiturates (drugs that produce a wide spectrum of central nervous system depression from mild sedation to coma, causing mild euphoria, lack of inhibition, relief of anxiety, sleepiness, impairment of memory, judgment and coordination, irritability paranoid or suicidal ideation, shallow respiration, clammy skin, dilated pupils, weak and rapid pulse coma, and possible death); Benzodiazepines (depressants that produce sedation, induce sleep, relieve anxiety and muscle spasms and prevent seizures, associated with amnesia, hostility, irritability, and causing vivid or disturbing dreams, shallow respiration, clammy skin, dilated pupils, weak and rapid pulse, coma, and possible death); GHB (Gamma-Hydroxybutyric acid, or sodium oxybate, a versatile date rape drug, causing euphoria, drowsiness, decreased anxiety, confusion, memory impairment, unconsciousness, seizures, slowed heart rate and breathing, lower body temperature vomiting, nausea, coma, and possibly death); Rohypnol® (a central nervous system depressant used as a date rape drug, causing drowsiness sedation, sleep—pharmacological hypnosis, decreased anxiety, amnesia, altered reaction time, impaired mental functioning and judgment, confusion, aggression, excitability, slurred speech, loss of motor coordination, weakness, headache, respiratory depression, and possible death).

*Hallucinogens*: Ecstasy/MDMA (a synthetic chemical that can produce euphoria, feelings of closeness, empathy, and sexuality, as well as confusion,

anxiety, depression, paranoia, sleep deprivation, drug cravings, muscle tension, tremors, involuntary teeth clenching, muscle cramps, nausea, faintness, chills, sweating, blurred vision, increased body temperature, resulting in liver, kidney, and cardiovascular system failure—death); K2/Spice (a mixture of herbs sprayed with a compound chemically similar to THC, the psychoactive ingredient in marijuana, causing paranoia, panic attacks, giddiness, increased heart rate and blood pressure); Ketamine (a dissociative anesthetic causing hallucinogenic effects, increased heart rate, involuntary rapid eye movement, dilated pupils, salivation, tear secretions, muscle stiffening, slow breathing, and unconsciousness); LSD (a potent hallucinogen with no recognized medical use, causing dilated pupils, increased body temperature, heart rate, and blood pressure, sweating, loss of appetite sleeplessness, dry mouth, tremors, psychosis, and possible death); Peyote (a drug made from a small spineless cactus whose active ingredient is the hallucinogen mescaline, causing illusions, hallucinations, altered perception of space and time, altered body image, nausea, vomiting, dilation of the pupils, increased heart rate and blood pressure, a rise in body temperature, in turn causing perspiration, headaches, muscle weakness, and impaired motor coordination); Psilocybin (a chemical obtained from certain mushrooms, causing hallucinations, nausea, vomiting, muscle weakness, psychosis, and possible death); Marijuana/Cannabis (a mind altering or psychoactive drug affecting pleasure, memory, thought, concentration, sensory and time perception, and coordinated movement, causing disinhibition, exhilaration, relaxation, talkativeness, as well as problems with memory and learning, distorted perception, difficulty in thinking and problem solving, loss of coordination, dizziness, tachycardia, facial flushing, dry mouth, and tremors); Inhalants (invisible, volatile substances found in hundreds of common household products, inhaled to induce psychoactive or mind altering effects. Their use can cause damage to the areas of the brain that control thinking, moving, seeing, and hearing, ranging from mild impairment to severe dementia, leading to weight loss, muscle weakness, disorientation, inattentiveness, lack of coordination, irritability, depression, permanent brain damage, heart failure, and possible death.

There's far more to it, of course. The DEA also lists "Drugs of Concern": Bath Salts or Designer Cathinones; DXM, Salvia Divinorum, Steroids.... But you get the picture: these drugs (and many others) are taken (or in some cases, *given*) in order to in some way separate the drugged one from reality. The user begins by seeking (and yes, *achieving*) an artificial state of euphoria or well being, but then the "side effects" set in—the dementia, nausea, tremors, organ failure, and sometimes even death. Not to mention the fact that while "on" the drugs, the user is invariably a non-productive member of society—unable to attend to his own needs or those of anyone else. And when "coming off" the effects of the drug, the user is likely to be thinking about one thing only: how to get more. The problem is twofold. First, people feel that there is something about their lives from which escape via drugs is seen as a viable solution. It need not be a "bad" thing like poverty or pain; it could just as easily be the empty feeling that comes from the vague realization that even the best this world has to offer still falls woefully short of the longing for "heaven" we all share—the "God-shaped vacuum" within each of us, aching to be filled.

Second, the drugs are habit-forming, if not outright addictive—they are a selfperpetuating prison. *WebMD* (mostly lifted wholesale from *DrugAbuse.gov*) notes, "Drug addiction is a chronic, often relapsing brain disease that causes compulsive drug seeking and use, despite harmful consequences to the drug addict and those around them. Drug addiction is a brain disease because the abuse of drugs leads to changes in the structure and function of the brain. Although it is true that for most people the initial decision to take drugs is voluntary, over time the changes in the brain caused by repeated drug abuse can affect a person's selfcontrol and ability to make sound decisions, and at the same time create an intense impulse to take drugs....

"Drugs are chemicals that tap into the brain's communication system and disrupt the way nerve cells normally send, receive, and process information.... Nearly all drugs, directly or indirectly, target the brain's reward system by flooding the circuit with dopamine. Dopamine is a neurotransmitter present in regions of the brain that control movement, emotion, motivation, and feelings of pleasure. The overstimulation of this system, which normally responds to natural behaviors that are linked to survival (eating, spending time with loved ones, etc), produces euphoric effects in response to the drugs. This reaction sets in motion a pattern that 'teaches' people to repeat the behavior of abusing drugs. As a person continues to abuse drugs, the brain adapts to the dopamine surges by producing less dopamine or reducing dopamine receptors. The user must therefore keep abusing drugs to bring his or her dopamine function back to 'normal' or use more drugs to achieve a dopamine high."

The surprising fact is that God Himself built within our bodies the very "drugdelivery system" that humanity universally craves: dopamine, endorphins, adrenaline—all delivered naturally, in the proper "doses," and as an appropriate response to the various stimuli of a normal, God-centered life—a hug from your children, sex with your spouse, a wonderful piece of music, art, or literature, a glorious sunset, a job well done, and (of course) chocolate. Since I have never voluntarily taken drugs (even though I attended college in the sixties), you may logically accuse me of being "out of touch" on this issue—concluding that I can't *possibly* understand what makes a drug user do what he does. But my few personal brushes with drugs have perhaps given me all the insight I need. Years ago, I developed a kidney stone. Not knowing what the problem was (but only that I was in severe distress) I found myself in the emergency room being pumped full of fluids to help it pass—along with morphine for the pain. I must admit, the relief—the escape from torment, replaced with an out-of-control sense of euphoria—was a uniquely pleasant experience, one I could easily have sought again, had I been of such a mindset. While "under," I had absolutely no concern for anything—not my job, my family, my personal responsibilities, or even how I was going to pay for the E.R. I was just floating there on cloud nine, *out of it* and happy to be so—until the drug wore off and I returned to planet earth, which was still by no means perfect, though it was where I belonged and where I was needed. For the first time in my life, I could "see" the attraction one might have to taking drugs.

Three times in my life I have had terminally ill children in my life undergoing hospice care. (Four of our nine adopted children were severely handicapped when we got them.) The first two died decades ago, but the passing of the third is still quite fresh in my mind. During her last week of life, our daughter Marianne was given some sort of narcotic pain killer to keep her comfortable. It was a good news, bad news story: yes, she was free of pain, but she was also unable to lucidly communicate with her mother and me. I *know* she wanted to ask me probing questions about her destination (since she was always bubbling with interesting queries), but she couldn't quite find the words in her drugged state, and I couldn't be sure she understood my answers or assurances, either.

Those two anecdotes point out the two-edged sword that is drug use: on one hand, people take them *for a reason*—sometimes legitimate, sometimes not so much. And most of them (especially the ones that were designed to deal with real medical problems, like Oxycodone) do their intended jobs reasonably well, if taken "as directed" and only for short periods of time. On the other hand, like virtually anything you can put into your body, these drugs can be abused—used for purposes God never intended for the body to experience. As I've said until I'm blue in the face, we were put here on earth to do one thing: to choose whether or not to receive and reciprocate the love of our Creator, Yahweh—demonstrating that choice by how we live our lives.

*What* we choose will determine our disposition throughout eternity—life, death, or damnation. The problem with drugs is that they compromise our ability to make rational decisions as we walk through life. To one extent or another, they rob us of the capacity for self-determination, if only temporarily. While under their influence, we are not fully able to exercise God's most fundamental gift to us: free will. We have surrendered our rights and prerogatives to a mere *chemical*. Satan, of course, doesn't *want* us to ponder our place in God's universe. He squeals with delight whenever we submit ourselves to anything that precludes rational thought, and drugs fill the bill nicely. Our minds define us: it is therefore in the devil's interests to see us "out of our minds," distracted at best, and incapacitated at worst.

Like extra-marital sex, illicit drugs are a self-inflicted pestilence. But unlike other diseases, this one has a profit motive. It has been calculated that the illegal drug trade comprises almost one percent of the entire world's economy. *Because* it's illegal, certain realities conspire to make the dope business much more destructive than any other "industry." Organizations involved in the drug trade from international cartels to local street gangs—think nothing of intimidation, bribery, and murder in order to protect their obscene profits. Because no taxes are paid, the profits are enormous—large enough for the cartels to "own" whole governments. And because the "product" is addictive (whether physically or psychologically), it "pays" the dealers to introduce as many people as possible to their false solution to a basic human need. Those who become dependent on these drugs, of course, tend to get to the point where they think of nothing else forsaking families, careers, and life itself in pursuit of that ever-more-elusive feeling of euphoria.

The *NPR.org* website (August 28, 2013) makes the case that drug abuse *as a disease* is far more serious a problem than the generally accepted statistics would indicate: "Mental disorders and substance abuse are the leading causes of nonfatal illness on the planet, according to an ambitious analysis of data from around the world. A companion report, the first of its kind, documents the global impact of four illicit drugs: heroin and other opiates, amphetamines, cocaine and cannabis. It calls illegal drugs 'an important contributor to the global burden of disease.' The two papers are being published by *The Lancet* as part of a continuing project called *The Global Burden of Disease*." Mental disorders are grouped statistically with substance abuse because the two things are linked both causally and medically: drug abuse can *cause* mental illness, and mental illness is invariably treated with yet more drugs. I find it fascinating that their focus is on the "global *burden* of disease." How many times in this essay have I been compelled to wonder at what point society will finally cease to function altogether because those in need have outnumbered and overwhelmed those able to help?

"The results stand out from previous disease rankings—and conventional thinking—which tend to focus on mortality as the most important metric. While mental illness and substance abuse do lead to premature deaths, the authors say, that's hard to track because deaths are usually ascribed to the immediate physical cause rather than the underlying reason. For instance, suicides are often categorized as deaths due to injury, and overdoses of illicit drugs are often coded as accidental poisonings.

"When researchers use a different lens-not mortality, but illness and disability—the global burden of mental disorders and illicit drug use becomes clear. They add up to nearly a quarter of the total disease burden, more than any other cause worldwide. The reports couch it in 'DALYs'—Disability-Adjusted Life-Years. One DALY is a year of healthy life that is lost to disease. By that measure, mental and substance abuse disorders cost nearly 184 million years of healthy life in 2010." What I'd like to know is: how much coke does a man have to snort, and how much ganga does he have to smoke, before a man is fit only for prison or politics? The current president of the United States (as I'm writing this) was legendary in his college years for one thing only: doing dope. The result (if not mere coincidence), was the most far reaching case of narcissistic personality disorder since Nero, negatively impacting hundreds of millions of lives. So it's apparently true: "The burden of mental disorders and substance abuse far outweighs the resources devoted to preventing and treating them. A third to a half of people with mental and drug use disorders go without treatment in wealthier countries, and up to 85 percent go untreated in less-developed countries, a previous study reported."

"Untreated," of course, is a loaded word. "Treatment" as often as not is a euphemism for trading one addiction for another—methadone for heroin, for example. Forced "drying out" is a hit-or-miss proposition, depending as it does on the ready willingness of the patient/addict to want to get clean. Call me hysterical, but the only "cure" worthy of the name is neither psychological nor physical: its spiritual. If one is filled with the Spirit of God, he has no need (nor room, I'm guessing) for any other "substance" to control his life. But then, I took the "cure" before I ever had the chance to get "sick," so I may be deemed unqualified to pontificate on the subject.

## *Genetic Entropy*

If anything is considered "certain" in science these days, it is that in the absence of external impetus, any given system tends to become less organized over time—*not* more complex. That's an admittedly simplified expression of the second law of thermodynamics, which states that states that "the entropy of an isolated system does not decrease." Entropy, in turn, can be simply defined as the "degree of disorder or randomness in a system." It's a measure of the loss of information or order or available energy that can be brought to bear.

As a universal principle, we all witness practical entropy increasing every day. Nothing exists that was not created, brought into being, built, or assembled by someone or something that was greater in some way than the thing being made. That is, children are "made" by their parents; cars and houses and toaster ovens are built by their manufacturers; planets and galaxies are created by God. Once built, all of these things require intelligence and energy to be expended in order to grow or improve; in fact, laborious maintenance is needed merely to "keep up" with the relentless march of entropy. But in the end, the things that "are" (i.e., that have already come into being) are all in the process of breaking down, wearing out, becoming less fit for their original purpose. People grow old and die. The things we make wear out, become obsolete, go out of style, outlive their usefulness, and finally disappear. Governments or societies rarely endure longer than a few hundred years. Scientific theories come and go. The pyramids of Egypt will eventually be nothing but dust in the wind. Given enough time, even the stars will burn through their nuclear fuel and implode.

And what about living species on planet Earth? They too are prone to going the way of the dodo bird. It has been estimated that there are 8.7 million species of eukaryotic organisms (that is, those with cells whose organelles are contained within membranes) alive on the earth today (plus or minus a couple of million). This includes Animalia, Chromista, Fungi, Plantae, and Protozoa. Of these, 1.2 million species are known and 7.5 million are only hypothetical. The Discovery Channel website, with more flair for the theatrical, puts the total number of species a wee bit higher: "Scientists have estimated that over the course of Earth's history, anywhere between 1 and 4 billion species have existed on this planet." I guess they're including prokaryotes (bacteria and archaea). "Be it through disease, genetic obsolescence, over-predation or any number of other factors, the overwhelming majority of these species are now extinct. Of these billions of species, roughly 50 million still survive into the modern era. While these numbers are certainly extreme at first glance, it serves as proof that extinction, while a sad occurrence, is a part of life for all living things." Some have estimated that 99.9% of all species that ever lived on Earth are now extinct.

So, the story seems to be: billions of species down; millions left to go. We've witnessed quite a few species go extinct in the past century or two, but we've *never* seen a new one emerge. That is, when a new plant or animal is found, it can be safely assumed that it is merely a variation that never got counted before—one of the hypothetical 7.5 million that are said to be lurking incognito on our planet, awaiting discovery by the taxonomists. The "new" species is *always* very much like something they already recognize—a frog, shark, cockroach, or whatever. The bottom line must be something of an embarrassment for those who insist on teaching the pseudoscience of evolution as gospel truth (as it is in every public school in the land): extinction is much, much faster that evolution ever was, even in their most hopeful hallucination.

If you'll recall from our previous chapter, virtually every phylum of eukaryotic life appeared within a blindingly brief twenty million year span of time, some 540 million years ago—the so-called "Cambrian explosion." If I may quote from the "Water, Air, and Land" chapter, "This rapid and unprecedented diversification of fauna *by itself* destroys the Darwinian view of evolution. Darwin knew of the fossil evidence for the Cambrian explosion, and it gave him nightmares. He hoped and prayed (to the God whose reputation he was trying to sabotage) that this evidence was due to an incomplete fossil record, but in the century and a half since he published *The Origin of Species*, the fossil evidence has only gotten stronger: life as we know it fairly *leaped* onto the world stage within a very short span of time a little over half a billion years ago.

"And worse (for them), the gaps between basic kinds of animals—a phenomenon evolutionary theory insists shouldn't be there—have grown more and more distinct as the fossil record became more complete. The "missing links" they so hoped to find simply don't exist. Of course, this is exactly what you'd expect to find if a Creator-God purposely introduced life-forms onto the planet the way He described the process in Genesis 1. The Cambrian explosion is apparently the fossil record of the fifth day of Creation. As the earth became ready to receive and support them, God *placed* (not evolved) more and more advanced animal kinds into the biosphere."

But since we humans began looking for them, we haven't witnessed the emergence of a single new kind of plant or animal. Once in a great while, we read of the emergence of a new "species," but it's invariably like this one, reported on *Discovery.com*: "Researchers from the National Institute of Health analyzed the genome of two strains of *Anopheles gambiae* [mosquito] and found unexpected differences. Their research supports the belief that two new species are emerging. Although they are physically indistinguishable, the two emerging species, called Mopti and Savannah, behave differently and prefer different habitats. They react differently to predators too. Mopti out-competes Savannah when predators are around, but Savannah can overtake Mopti when there are no predators." Really? By that standard, *I* became a new species when I changed careers in 1996 and moved my family to the other side of the country. I lost many of my old skills, developed all new ones, and broadened my tolerance for cold winters in the process. *Voila!* A whole new species of Ken, if you believe in that sort of thing. It's utter nonsense.

No, what geneticists and sociologists see in real life is not the emergence of new species—and certainly not new animal "kinds"—but rather genetic entropy on a global scale. Like bacteria and viruses adapting to defend themselves against antibiotics and vaccines, "new species" are merely the result of specialization—of dredging up already existing recessive genes that provide an "edge" in certain environments. Something is gained, but at a cost. Nothing new is being created; the genome is not improving, nor is it becoming more complex. It's like shuffling a deck of cards: if most of the "face cards" end up on the bottom of the deck, you might win a hand of poker with a pair of nines. If you want to call that evolution, you're kidding yourself. But genetic entropy is even worse. It's like every time you shuffle the deck, a card is removed, making it harder—or impossible—to win with "complicated" strategies like straights or flushes. Pretty soon, you're reduced to simple pairs: brute force and dumb luck.

As if to confirm my hypothesis, Michael Snyder, writing for *theDailySheeple.com* (August 26, 2013) wrote an article entitled, "The Human Race Is Dying: DNA Degeneration Would Eventually Lead To The Total Extinction Of Humanity." As unsettling as that may sound, the science leads us to precisely that conclusion. Don't blame me if it lines up perfectly with what Bible prophecy tells us is going to happen. Snyder writes, "The human race is dying. It certainly won't happen this year or even this decade, but the steady degeneration of human DNA would eventually lead to the total extinction of humanity, given enough time. The reason that we are heading toward extinction is the increasing number of mutations that are being passed down from generation to generation." The burden of a compromised gene pool is not so much that genetic diseases kill people outright, but that those who labor under them are not able to be fully functional members of society: they have no choice but to be part of the problem instead of being part of the solution.

"According to Dr. John Sanford of Cornell University, every one of us already carries tens of thousands of harmful mutations, and each of us will pass on approximately 100 new mutations to future generations. Humanity is degenerating at an accelerating pace, and at some point the number of mutations will become so great that we will no longer be able to produce viable offspring. This is not going to happen in the immediate future, but already signs of DNA degeneration are all around us. Despite all of our advanced technology, genetically-related diseases are absolutely exploding. Our bodies are weak and frail, and with each passing generation it is getting even worse.

"Most people don't understand this. Most average people on the street just assume that the human race will be able to go on indefinitely." What was it the Apostle Peter wrote? **"Scoffers will come in the last days, walking according to their own lusts, and saying, 'Where is the promise of His coming? For since the fathers fell asleep, all things continue as they were from the beginning of creation."** (II Peter 3:3-4) "But the geneticists that carefully study these things understand this stuff. Each generation is successively becoming more "mutant", and if given a long enough period of time it would mean our end. Dr. Sanford puts it this way: 'We are a perishing people living in a dying world."" Perhaps the last-days scoffers should reevaluate their position in light of the information being revealed by today's geneticists. Perhaps the evolutionists should reevaluate their position in light of the fact that the mutations in our genome are *not* making the species better.

"In school and in the movies, we are taught that mutants are 'cool' and that mutations can be a very good thing. But that simply is not solid science." X-men and comic book superheroes are *fictional characters*. That should be self-evident, but I guess it's not. "The following is how Alex Williams describes the incredibly damaging role that mutations play in our biology: '...Directly contradicting mutation's central role in life's diversity, we have seen growing experimental evidence that mutations destroy life. In medical circles, mutations are universally regarded as deleterious. They are a fundamental cause of ageing, cancer and infectious diseases. Even among evolutionary apologists who search for examples of mutations that are beneficial, the best they can do is to cite damaging mutations that have beneficial side effects (e.g. sickle-cell trait, a 32-base-pair deletion in a human chromosome that confers HIV resistance to homozygotes and delays AIDS onset in heterozygotes, CCR5-delta32 mutation, animal melanism, and stickleback pelvic spine suppression). Such results are not at all surprising in the light of the discovery that DNA undergoes up to a million damage and repair events per cell per day.'

"So no, we are not going to 'evolve' into bigger and better creatures. Instead, the human race is steadily breaking down, and our time is running out." Sooner than you may imagine, I'm thinking. "In essence, the blueprint of human life is being systematically destroyed, and there is not a thing we can do to even significantly slow it down." This, once again, flies in the face of the core premise of evolutionary hypothesis: that humanity (along with every other kind of life) is constantly, if slowly, getting better and better. We're not. Quite the opposite, in fact. We're not evolving: we're *devolving*.

Mr. Snyder's article goes on to quote more specific evidence. "The following is from a paper by Gerald H. McKibben and Everett C. McKibben '...Geneticists have long worried about the impact of mutations on the human population, and worried that at a rate of one deleterious mutation per person per generation, genetic deterioration [of our entire species] would result. Earlier reports were based on estimates of mutation rates considerably lower than what we now know to be the case. Findings going back to 2002 show that the human mutation rate is at least 100 mistakes (misspellings) per person per generation. Some scientists believe the rate is closer to 300. Even a rate of 100 has profound implications, and *the mutation rate is itself increasing*. Furthermore, most, if not all, mutations in the human genome must be deleterious. And nothing can reverse the damage that has been done during our own generation, even if further mutations could be stopped. It would appear that the process is an irreversible downward spiral that will end in "mutational meltdown.""

"So how long do we have until this 'mutational meltdown' takes place? Well, according to McKibben and McKibben, Dr. Sanford estimates that the human race has a total lifespan of approximately 6,000 years." Funny: that's precisely what Yahweh said, in so many words: 6,000 years before a thousand-year period of "rest" under His Personal care would be required—the kingdom age. In fact, factoring in Yahweh's omniscience, our susceptibility to mutations could well be the basis of the Law of the Sabbath. Maybe the reason God equated "one day with a thousand years" (II Peter 3:8, Psalm 90:4) is that He *knew* living in a fallen world would subject the collective genome of the human race to a mutational burden that couldn't be sustained much beyond six thousand years. Not to belabor the point, but the whole premise of this series of appendices is to demonstrate that however you parse the data, unregenerate man will have run his course on this planet by the fourth decade of the twenty-first century—to be specific, October 8, 2033. You may as well stick a fork in us, 'cause we're *done*. It's the end of the world as we've known it (which is not to say it's actually the end).

"The author cites research showing that the human race is currently degenerating at 1-2 % per generation due to accumulation of mutations. At a 1% decline in fitness per generation, there is a sharp reduction in fitness after 300 generations (about 6,000 years)." Remember, under Darwinian dogma, "fitness" is the sole criteria for survival. Oops. I should point out that Adam and Eve were the progenitors of a whole new—and genetically pristine—species introduced by Yahweh about 6,000 years ago. They (according to the scriptural record) were *not* descended from the proto-human species (e.g., Neanderthals, Cro-Magnons, etc.) that apparently roamed the earth for several hundred thousand years—man-like animals *not* equipped with a *neshamah* (the "breath of God" that makes possible Spiritual indwelling—see Genesis 2:7).

"One of the most interesting revelations in Genetic Entropy is Dr. Sanford's and other workers' analysis of the Biblical account of life expectancies. In a statistical regression analysis of declining life spans since Noah (who lived 950 years), after 32 centuries since Noah the life expectancy has declined to about 70. The remarkable aspect is that this curve, which shows a sharp drop-off after Noah and a more gradual decline about 1,000 years ago [*sic*. I think he meant to say, "a more gradual decline after about 1,000 years *had passed*—which would make it about the time of Abraham and Job], is that it is very similar to theoretical curves presented by other researchers that show genetic degeneration. Either Moses faithfully recorded the events (and ages) recorded in Genesis, or he was a skilled statistician who made up data with a remarkable fit to an exponential curve!" Actually, the evidence indicates that Moses compiled the chronological and historical data in Genesis from extant—and already ancient—written records.

"Other scientists put the lifespan of the human race significantly higher [as I said, it all depends on how you define "human"], but without a doubt there is a growing awareness in the scientific community that the human race is slowly heading toward extinction. This is how Alex Williams puts it... 'Like rust eating away the steel in a bridge, mutations are eating away our genomes and there is nothing we can do to stop them." The problem with mutations, of course, is that they *never* "mutate" back to the way they used to be. Once they're in the collective genome, they're there for good. "Dr. Sanford makes the same point a little bit more eloquently: 'The extinction on the human genome appears to be just as certain and deterministic as the extinction of stars, the death of organisms, and the heat death of the universe."

Yes, that observation is where I began: at the Second Law of Thermodynamics. I have, of course, quoted qualified sources that tended to make my points for me. There are, I should point out, a plethora of supposedly qualified and highly respected "experts" that would have you believe that we're just fine: Pay no attention to the disturbing rise in genetic entropy you'll see all around you if you're foolish enough to open your eyes and pay attention. The folks from Stanford, for instance, insist that "Few mutations are bad for you. In fact, some mutations can be beneficial. Over time, genetic mutations create genetic diversity, which keeps populations healthy. Many mutations have no effect at all." Ah, yes: genetic diversity (a.k.a. keeping the races separate, a.k.a., Apartheid), so philosophically dear to the hearts and minds of liberal progressives. I would simply remind you that these are the *same* people on the *same* website, who, when asked, "Are GM foods bad for me?" piously opine, "Scientifically there is nothing about the process of genetically modifying a food to make it dangerous. All a scientist does is add one or at most a handful of new genes to the crop. Since plants have tens of thousands of genes, adding a few extra is really no big deal." A *little bit of arsenic surely won't do you any harm.* Knowing what you and I now know about GMOs, we can spot a bald-faced lie (told no doubt in order to keep the funding rolling in) when we see it.

So the Stanford people feel that "Few mutations are bad for you." Really? *Wikipedia* lists 771 *diseases* that are linked to genetic factors. I'd call that more than "a few." Although these diseases haven't all been classified as to what sort of disorder they are, there are four basic types: (1) Point mutation, or any insertion/deletion entirely inside one gene; (2) Deletion of an entire gene or genes; (3) A whole chromosome extra, missing, or both; or (4) Trinucleotide repeat disorders, extending the gene in length. The most common of these genetic maladies are (listed in alphabetical order) are: 22q11.2 deletion syndrome; Angelman syndrome; Canavan disease; Charcot–Marie–Tooth disease; Color blindness; Cri du chat; Cystic fibrosis; Down syndrome; Duchenne muscular dystrophy; Haemochromatosis; Haemophilia; Klinefelter syndrome;

Neurofibromatosis; Phenylketonuria; Polycystic kidney disease; Prader–Willi syndrome; Sickle-cell disease; Tay–Sachs disease; and Turner syndrome. Being merciful, I won't list all 771 genetic diseases for you. Even the short list is enough to keep the script writers for TV's "Dr. House" busy for a couple of seasons.

So there it is. Whether or not you "feel sick," the fact is that pestilence and disease in one form or another are going to increasingly shape your life in the few years left between now and Christ's kingdom age. Whether communicable or chronic, whether innocently accidental or self-inflicted, whether germ based or genome based, everyone on earth will be touched by disease—if only by being asked to foot the bill for someone who can't. A strong society requires strong individuals, and there will soon be too much burden for the strong to bear without faltering. What can be done? What will be done? There is only One who can repair the damage, and He has promised to do that very thing: "Bless Yahweh, 0 my soul; and all that is within me, bless His holy name! Bless Yahweh, 0 my soul, and forget not all His benefits: who forgives all your iniquities, who heals all your diseases, who redeems your life from destruction, who crowns you with loving kindness and tender mercies, who satisfies your mouth with good things, so that your youth is renewed like the eagle's." (Psalm 103:1-5) I'm looking forward to the day when these things are literal and overt truths, not just promises we know to be trustworthy because of the Holy Spirit dwelling within us.

## Appendix 7 Secular Chronology Confirmation

How current trends corroborate the Bible's revealed timeline

## EARTH SCIENCES AND BEYOND

For the last few chapters, we've been discussing geophysical factors taking place on the earth's *surface*—within the habitat of man—that are conspiring to inform us that our planet is suddenly becoming a less hospitable place to live. Indeed, it appears obvious that by the fourth decade of the twenty-first century, Earth will not be able to support the nine billion people who will then be living here (if all things continue at their present pace). Between expanding deserts, shrinking forests, soil nutrient depletion, shrinking aquifers, environmental pollution, marine oxygen depletion, and undersea methane threats, there's a lot to be pessimistic about.

Or, there *would be*, had Yahweh not told us in His scriptures precisely what to expect—and, if I'm right, *when* to expect it. Taken to their logical conclusions, the Bible's Sabbath principle, the twice-repeated "one-day-equals-a-thousand-years" formula, the Torah's prophetic "Feasts of Yahweh," and the unfolding of historical events over the past six millennia all lead us (well, *me* anyway) to the conclusion that Christ's Kingdom age will commence on the Feast of Tabernacles, 2033 (Tishri 15—October 8 that year): that is, in the fourth decade of the twenty-first century—precisely when so many of these "doomsday factors" seem poised to reach critical mass.

So we have studied the disasters that look imminent *upon* the earth. Let us now consider what could happen *under* it, *above* it, and *beyond* it. The time factor is more elusive here, of course, for our knowledge is less advanced compared to the subjects we've already explored. But the human race has become, during the past few decades, far more conversant in these sciences than ever before knowledgeable enough to recognize heretofore unforeseen threats to the world's status quo. It's no coincidence that the prophet Daniel was told to "Shut up the words and seal the book until the time of the end: many shall run to and fro, and knowledge shall increase." (Daniel 12:4) That seems to be a promise that when "the time of the end" drew near, we humans would understand our world well enough to see it coming.

We should not confuse our *awareness* of the threats to our world with the threats themselves. The absence of advance knowledge about the Chicxulub

asteroid 65 million years ago, or the destruction of Pompeii by the eruption of Mt. Vesuvius in 79 A.D., made these disasters no less inevitable or destructive. There was nothing anyone could have done to prevent them. But foreknowledge of impending disaster can be useful. If you know it's coming—if you have enough warning—you can at least try to move away from the threat, seek shelter, get out of the way. Modern scientific advancements often allow us to do precisely that, to some extent: hurricane alerts, early warning signs for earthquakes or volcanic eruptions, winter weather advisories, and so forth, allow us a better chance of surviving what the world throws at us than any previous generation enjoyed.

If you think about it, that's one of the primary functions of Biblical prophecy: advance knowledge of things that can harm us, allowing us to be better prepared to deal with them—or avoid them altogether if God has so ordained. In broad strokes, there are two basic components to prophetic foreknowledge in scripture: what can harm us, and what will save us. That is, it's not a parlor trick. God doesn't tell us what will happen in the future merely to impress us (though it's certainly impressive). Rather, because He loves us, Yahweh wants us to be equipped with the knowledge we'll need to make good choices. That's the rub, however: the choices of whether to avail ourselves of the salvation He provides through Christ, or to take steps to avoid the coming judgment, are *ours* to make not His. Because of the nature of love in the context of free will, God won't make our choices for us: all He can do is warn us, advise us, and provide what we need. It's up to us to receive His admonition, advice, and provision. It's all a matter of whom we believe, of whom we trust.

The bulk of as-yet-unfulfilled prophecy has to do with the culmination of this present age—the era immediately preceding the Millennial Kingdom of Christ. It is described as a time of judgment—which in scriptural parlance implies not God's punishment *per se*, but rather judicial decision, the separation of the innocent from the guilty, of right from wrong, of holy from profane. (Of course, we tend to read "condemnation" into the concept of judgment because we all know we're guilty before Yahweh.) The reason God has given us so much information about the Last Days is that He wants us to be able to avoid its horrors. He wants us to be able to choose to leave Pompeii before Vesuvius blows its top (so to speak), or to depart from Jerusalem before Titus Vespasian shows up with his legions (to cite an historical example of practical prophecy). Everybody understands the concept: people were warned to get out of New Orleans well before Katrina made landfall: some heeded the admonitions, but many did not.

In the Olivet Discourse, Yahshua offered two parallel examples: the flood of Noah's day and the rain of fire upon Sodom and Gomorrah from which Lot escaped (both catastrophes caused by asteroids, if I'm not mistaken—a factor that continues to loom large in Last Days prophecy). Because God removed His

faithful before disaster struck, both of these events define the concept of judgment: the physical separation of the saved from the lost. As we have seen, both Noah's flood and Lot's rescue from Sodom are prophetic precursors to different elements of future judgment—judicial separation, that is. Lot's extrication from Sodom prefigures the rapture of the Church. (And please note: if we consider the sorry state of Lot's chosen environment prior to his removal, Christians should be less gleeful than we usually are at the prospect of having to be rescued like this. Many of us are all too comfortable living in "Sodom.") Noah's experience is prophetic of something else: the divine protection of Israel's remnant during the Tribulation (see Revelation 12:14). It's a good news-bad news story: Israel's reawakening to Yahweh's reality and purpose will come as a direct result of His protection of their nation during the Battle of Magog (see Ezekiel 39:22)—placing their national epiphany after the rapture (even if some Jewish individuals are technically part of Christ's ekklesia). So just like Noah, they will return as mortals to a devastated earth-this time, however, with Yahshua the Messiah as their King.

All of that should serve as background information for our current topic: the geophysical and astrophysical upheaval that can be expected to befall the Earth during the days leading up to the Kingdom age. Several well-known prophetic passages tell us what to expect.

*Earthquakes*? As a sign of the Last Days: "For nation shall rise against nation, and kingdom against kingdom: and there shall be famines, and pestilences, and earthquakes, in various places." (Matthew 24:7) During the invasion of Islam—the Battle of Magog: "For in My jealousy and in My blazing wrath I declare, on that day there shall be a great earthquake in the land of Israel. So that the fish of the sea, and the fowls of the heaven, and the beasts of the field, and all creeping things that creep upon the earth, and all the men that are upon the face of the earth, shall shake at My presence, and the mountains shall be thrown down, and the steep places shall fall, and every wall shall fall to the ground." (Ezekiel 38:19-20) During the seventh bowl judgment: "And there were flashes of lightning, rumblings, peals of thunder, and a great earthquake such as there had never been since man was on the earth, so great was that earthquake." (Revelation 16:18) And scores of similar examples could be offered.

*Storms?* The Greek word translated "earthquake" (*seismos*) also indicated (in Matthew 8:24) a tempest that arose on the Sea of Galilee. So we may safely infer that storms—cyclones, hurricanes, tornadoes, and especially tsunamis (earthquake-generated ocean "tempests")—are included in Christ's prediction. A few Last Days examples illustrate this concept. When dealing with Israel's Arab enemies: "Like fire that burns the forest, and like a flame that sets the mountains on fire, so pursue them with Your tempest And terrify them with Your storm. Fill their faces with dishonor, that they may seek Your name, O Yahweh." (Psalm 83:14-16) Concerning the

defense of Jerusalem: "But the multitude of your foreign foes shall be like small dust, and the multitude of the ruthless like passing chaff. And in an instant, suddenly, you will be visited by Yahweh of hosts with thunder and with earthquake and great noise, with whirlwind and tempest, and the flame of a devouring fire." (Isaiah 29:5-6) The Last Days' wrath of God: "Behold, the storm of Yahweh! Wrath has gone forth, a whirling tempest; it will burst upon the head of the wicked. The anger of Yahweh will not turn back until He has executed and accomplished the intents of His heart. In the latter days you will understand it clearly." (Jeremiah 23:19-20)

*Volcanoes?* "Hear, you peoples, all of you; pay attention, O earth, and all that is in it, and let the Lord Yahweh be a witness against you, the Lord from His holy temple. For behold, Yahweh is coming out of His place, and will come down and tread upon the high places of the earth. And the mountains will melt under Him, and the valleys will split open like wax before the fire, like waters poured down a steep place." (Micah 1:2-4) "He stood and measured the earth; He looked and shook the nations. Then the eternal mountains were scattered; the everlasting hills sank low.... The mountains saw You and writhed. The raging waters swept on; the deep gave forth its voice; it lifted its hands on high." (Habakkuk 3:6, 10) The second trumpet judgment: "The second angel blew his trumpet, and something like a great mountain, burning with fire, was thrown into the sea, and a third of the sea became blood. A third of the living creatures in the sea died, and a third of the ships were destroyed." (Revelation 8:8-9) The seventh bowl judgment (again): "And every island fled away, and no mountains were to be found. And great hailstones, about one hundred pounds each, fell from heaven on people; and they cursed God for the plague of the hail, because the plague was so severe." (Revelation 16:20-21)

Solar flares? The fourth bowl judgment: "The fourth angel poured out his bowl on the sun, and it was allowed to scorch people with fire. They were scorched by the fierce heat, and they cursed the name of God who had power over these plagues. They did not repent and give Him glory." (Revelation 16:8-9) Concerning the Tribulation martyrs: "Therefore they are before the throne of God, and serve Him day and night in His temple. And He who sits on the throne will shelter them with His presence. They shall hunger no more, neither thirst anymore; the sun shall not strike them, nor any scorching heat. For the Lamb in the midst of the throne will be their shepherd, and He will guide them to springs of living water, and God will wipe away every tear from their eyes." (Revelation 7:15-17)

Asteroids and Meteorites? The third trumpet judgment: "The third angel blew his trumpet, and a great star fell from heaven, blazing like a torch, and it fell on a third of the rivers and on the springs of water. The name of the star is Wormwood. A third of the waters became wormwood, and many people died from the water, because it had been made bitter." (Revelation 8:10-11) The sixth seal judgment: "When he opened the sixth seal, I looked, and behold, there was a great earthquake, and the sun became black as sackcloth, the full moon became like blood, and the stars of the sky fell to the earth as the fig tree sheds its winter fruit when shaken by a gale." (Revelation 6:12-13)

So both extraterrestrial and subterranean threats are prophesied for our world during the Last Days. And if the scriptures can be taken at face value (as I believe they can) then the devastation will be catastrophic and unprecedented. But what do the secular sources say? Do they foresee similar issues on the horizon, hanging like the sword of Damocles over the human race? Indeed they do. Once again, the secular media sees the same sorts of threats in the world's near future—without a clue as to how or why their data support the admonitions of scripture.

## Storms

Anybody with access to a newspaper, television, or web browser has been inundated lately with stories of huge storms all over the earth. But the frequency and intensity of these killer storms has been building for some time. *NBC News* lists the twelve most deadly storms on record—almost all of them within the past century, and most of them within the past couple of decades:

The deadliest storm in the U.S. was the 1900 Galveston flood: "A Category 4 hurricane that struck Galveston, Texas, on Sept. 8, 1900, ranks as the deadliest natural disaster in U.S. history. An 8- to 15-foot storm surge leveled the low-lying city. Between 6,000 and 12,000 people were killed. The few buildings that survived are tourist attractions today."

In 1970, the Ganges delta was hit so hard, it brought down the government: "The Bhola cyclone is the deadliest storm ever recorded and one of the worst natural disasters in modern times. Up to 500,000 people were killed, primarily as the result of a 30-foot storm surge that flooded low-lying islands in the Ganges delta in modern-day Bangladesh. The Category 3 storm made landfall the night of Nov. 12, 1970. East Pakistan's handling of relief effort was highly criticized locally and in the international media, fueling a resistance movement that led to the creation of Bangladesh in 1971."

China suffered terribly in 1975: "Super Typhoon Nina brought a short-lived gusher of epic proportions to China on Aug. 2, 1975. Nearly 42 inches of rain fell in a 24-hour period, the highest recorded on mainland China. The water volume caused the Banqiao Dam to collapse, which triggered the collapse of a series of smaller dams. In total, 61 dams burst. An estimated 170,000 people died in the floods."

India was the target of 1977's most devastating storm: "A cyclone struck the state of Andhra Pradesh in southern India on Nov. 19, 1977, bringing a 15-foothigh tidal surge and widespread flooding. Between 10,000 and 20,000 people were killed, and several million were rendered homeless. About 60 fishing and farming villages in the path of the storm were wiped out." In 1991, low-lying Bangladesh got hit again: "On April 29, 1991, a cyclone struck the Chittagong district of southeastern Bangladesh with winds in excess of 150 mph. A massive storm surge and widespread flooding devastated low-lying coastal regions. At least 138,000 people died, most by drowning. As many as 10 million more were left homeless. Researchers say many of the deaths could have been prevented if adequate warning systems had been in place."

Later that year it was the Philippines' turn: "Tropical Storm Thelma killed an estimated 6,000 people as it swept across the Philippines on Nov. 5, 1991, making it the deadliest tropical cyclone in the Pacific island nation's history [until recently]. A dam failure, landslides and extensive flash flooding contributed to the catastrophe. Ormoc City was the hardest-hit, in part because extensive logging had stripped the surrounding hills of vegetation."

Central America was the target in 1998: "Hurricane Mitch unleashed a furry of wind and torrential rain as it raked across Central America from Oct. 29 to Nov. 3, 1998. At least 11,000 deaths in Honduras, Nicaragua, El Salvador, Guatemala and Belize are attributed directly to the storm, and perhaps several thousand more perished in the aftermath. More than 3 million people were displaced as several feet of rain sent mud racing down hillsides and wiped out entire villages. Before Mitch made landfall, the hurricane reached maximum sustained winds of 180 mph. Gusts topped 200 mph."

In 1999, a huge tidal surge devastated India: "A super cyclone swept into the northeastern state of Orissa, India, on Oct. 29, 1999, with 155 mph winds. At least 10,000 people died in the storm. A 20-foot-high tidal wave traveled 12 miles inland across low-lying plains. Nearly 7,000 square miles of crops were destroyed. Torrential rains and record-breaking floods made roads impassable. Millions were left homeless."

In 2005, the American Southeast was hit—twice: "The infamous Hurricane Katrina hit the United States with a one-two punch. The storm first crossed southern Florida on Aug. 23, 2005, as a Category 1 soaker that caused several deaths. When it passed over the Gulf of Mexico, the storm blew up to one of the strongest on record—a rare Category 5 with maximum sustained winds of 175 mph. When Katrina made landfall on Aug. 29, the storm had weakened slightly but was no less costly. At least 1,836 people were killed. New Orleans was swamped, and much of the Gulf Coast was devastated."

Hapless Bangladesh was pummeled again in 2007: "Tropical Cyclone Sidr slammed into southwest Bangladesh on Nov. 15, 2007, with peak sustained winds of 135 mph. Hundreds of thousands of homes were damaged, much-needed crops were destroyed, and an estimated 3,500 people lost their lives. The death toll would have been much higher if the government hadn't evacuated more than 1.5 million people from low-lying villages before the storm made landfall." In 2008, Myanmar was devastated: "Cyclone Nargis swept over Myanmar (Burma) on May 2, 2008, with 120 mph winds and a tidal surge that smashed through coastal towns and cities. Survivors were jammed onto small boats in the wake of the storm. Entire villages in Myanmar's Irrawaddy Delta were flooded for days, and it was difficult for aid workers to gain access to the military-ruled Southeast Asian country. The death toll was estimated at more than 130,000."

The *NBC* article was written before Typhoon Haiyan struck the Philippines in Early November, 2013. It is one of the deadliest Philippine typhoons on record, leaving over six thousand people confirmed dead in that country alone (with another 1,800 missing), before moving on toward North Vietnam. Haiyan is the strongest storm recorded at landfall in the Philippines, and unofficially the fourth strongest typhoon ever recorded in terms of wind speed. It caused catastrophic destruction on Samar Island and Leyte. According to UN officials, about 11 million people were affected, many of them left homeless.

Although death toll is undoubtedly the most logical way to gauge the severity of a storm, it also makes sense to track the damage in terms of financial impact—especially in places like America where infrastructure is expensive and (because of our Judeo-Christian heritage) lifesaving precautions are always the first priority. *MSN.com* thus offers this list of the ten *most expensive* hurricanes ever to hit the U.S.

"#10. *Frances*. Dates: Sept. 3-9, 2004. Insured losses: \$5.63 billion. A week after Charley hit Florida's Gulf Coast, Frances struck the Sunshine State's Atlantic Coast near Sewall's Point. Weakening to a tropical storm, Frances tracked northwest into the Gulf and made a second landfall at St. Marks in the Florida Panhandle. As it moved from Florida to Virginia, the storm brought heavy rain and flooding and spawned more than 100 tornadoes." I should note that the *insured* losses don't represent the whole cost of these events. I lived through Frances (and a few other big ones) here in Central Virginia. Although we got off better than many folks, we were without power for over a week, meaning lots of my neighbors lost hundreds of dollars' worth of food in their refrigerators and freezers, for starters.

"#9. *Rita*. Dates: Sept. 20-26, 2005. Insured losses: \$6.66 billion. Gulf Coast residents were picking up the pieces from Katrina when Rita hit the Texas-Louisiana border—the first time two hurricanes strengthened to Category 5 in the Gulf in one season. More than 2 million people were evacuated in Texas, one of the largest evacuations in U.S. history. Texas and Louisiana bore the brunt of wind and flood damage.

"8. *Hugo*. Dates: Sept. 17-22, 1989. Insured losses: \$7.83 billion. After devastating parts of Puerto Rico and the U.S. Virgin Islands, Hugo struck northeast of Charleston, S.C. Packing 135 mph winds, the hurricane barreled into

North Carolina, wreaking havoc as far inland as Charlotte. Hugo damaged or destroyed the homes of more than 200,000 families, according to Red Cross estimates.

"#7. *Ivan*. Dates: Sept. 15-21, 2004. Insured losses: \$8.71 billion. After landing west of Gulf Shores, Alabama, Ivan spawned more than 100 tornadoes and heavy rain from Florida to Pennsylvania as it moved inland. Thousands of beachfront homes and buildings in the Florida Panhandle were damaged or destroyed. Debris piles after cleanup in Escambia County alone grew to 70 feet high and stretched three-quarters of a mile.

"#6. *Charley*. Dates: Aug. 13-14, 2004. Insured losses: \$9.15 billion. Charley hit Florida's southwest coast near Cayo Costa and cut a destructive swath across the central peninsula. After a detour to sea, the storm brushed Cape Romain, S.C., and made final landfall at North Myrtle Beach, S.C. Charley destroyed Carolina beachfront homes but did the worst damage in Florida, leaving tens of thousands of people homeless and almost 1 million without power.

"#5. *Wilma*. Date: Oct. 24, 2005. Insured losses: \$11.07 billion. Wilma drove into Florida's southwest coast near Naples and sped across the state to Palm Beach. The storm left parts of the Florida Keys under several feet of water, spawned tornados on the Space Coast, tore up homes and buildings, blew out high-rise windows and left more than 6 million people without power.

"#4. *Ike*. Dates: Sept. 12-14, 2008. Insured losses: \$13.43 billion. Ike slammed into Galveston Island and rumbled through eastern Texas to Arkansas. Seawater up to 20 feet above normal tide swept away almost every building in Crystal Beach, Gilchrist and High Island on the Bolivar Peninsula in Texas. Ike tore off parts of the roof on Reliant Stadium in Houston, flooded homes 30 miles inland in southwestern Louisiana and spawned tornadoes in Arkansas.

"#3. Sandy. Dates: Oct. 22-29, 2012. Insured losses: \$18.75 billion. Sandy attained hurricane status Oct. 24 and made U.S. landfall Oct. 29 near Atlantic City, N.J., as a post-tropical cyclone. The "superstorm" pummeled 24 states from Florida to Maine and in Appalachia and the Midwest. New York's Lower Manhattan was flooded, homes and businesses were washed away on the Jersey Shore, and 6 million people were left without power.

#2. Andrew. Dates: Aug. 24-26, 1992. Insured losses: \$25.56 billion. Andrew crashed into the coast south of Miami with winds so intense they destroyed the tools used to measure them. Before failing, one instrument clocked gusts at 169 mph. The storm sped west across the peninsula into the Gulf of Mexico, and then shifted north to the central Louisiana coast. Wind tore off roofs and flattened entire neighborhoods, causing more damage than flooding in Florida.

"#1. *Katrina*. Dates: Aug. 25-30, 2005. Insured losses: \$48.68 billion. Horrific Katrina worked its way across southern Florida into the Gulf and strengthened to a Category 5 hurricane before striking near the Louisiana-Mississippi border. Walls of seawater inundated coastal cities within hours, leaving parts of Mobile, Ala., and Gulfport and Biloxi, Miss., underwater. Levees in New Orleans failed. Most roads out of the city were damaged. Wind peeled off roofs, including large chunks of the Superdome, where evacuees huddled. Left homeless, hundreds of thousands of people left the area to start their lives elsewhere."

Call me hysterical, but note that six of the ten costliest hurricanes in U.S. history took place in 2004-2005. The "green lobby," of course, would chalk up the carnage to global warming (never mind the fact that we were six years into a period of climate stability—and even cooling—by then). But consider this: America was at the time putting intense pressure on Israel to release their sovereign control over the Gaza Strip to the Palestinians. This territory (as we saw back in Chapter 6 of this present work: "Ground Zero") was within the borders of Israel's Promised Land, according to the eternal word of Yahweh. Israel had no business-and no right-to give away what Yahweh had given them, no matter how much pressure their so-called "allies" applied in the name of political correctness and liberal-progressive naiveté. The result, not surprisingly, has been that Gaza has become a poverty-stricken war zone, and a literal launching pad for Islamic terror in the form of Kaytusha rockets raining down on Southern Israeli towns within range. God has protected His people, for the most part, but if the Gaza Islamists had their way, they would bite the Jewish hand that fed them—all the way up to the elbow.

Hurricane Katrina was merely the last straw in Yahweh's series of six stern warnings to America. Gush Katif, a bloc of seventeen Israeli settlements in the southern part of the Gaza Strip, was abandoned to the Muslims in August, 2005—as I said, the direct result of intense pressure from a misguided, apostate America. In a moment of shameful acquiescence, the Israeli Army, their vaunted IDF, forcibly evicted 8,600 Jewish residents from their Gush Katif homes, demolishing what they had built so the Palestinians couldn't use it against them (but mostly so the settlers would have no reason to come back). The Gaza Israelis became refugees in their own nation. So know this: Hurricane Katrina made landfall in New Orleans *only hours* after the surrender of Gush Katif. America's worst Hurricane in a hundred years didn't have to happen. This was no coincidence; it was a well-deserved "spanking" from Almighty God. As far as I can tell, we didn't take the hint.

If anything, America's irrational political antagonism toward Israel has only intensified under the current (as I write these words) administration—that of Mr. Obama. So at the risk of belaboring the point, note that four of the five costliest

*tornadoes* in U.S. history occurred on his watch—all during his second term: (1) Joplin Missouri, May 22, 2011: \$2.096 billion in damages (adjusted for inflation in 2013 dollars); (2) Tuscaloosa, Alabama, April 27, 2011: \$2.542 billion; (3) Moore, Oklahoma, May 20, 2013: 2.0 billion; (4) Oklahoma City, Oklahoma, May 3, 1999: \$1.4 billion; and (5) Hackleburg, Alabama, April 27, 2011: \$1.339 billion. What was it about Yahweh's promise to Abraham and his descendants, "I will bless those who bless you, and I will curse him who curses you," (Genesis 12:3) that we didn't understand?

Frankly, I'm not entirely sure whether the recent increase in costly storms in the U.S. is due to our political betrayal of Israel or merely our abandonment of Godly principles in general—the principles upon which this nation was founded. I *can* tell you that several books have been written that track the stunning statistical correlation between our political treacheries toward Israel and devastating and costly disasters (natural and otherwise) on our own soil. Notably, see *Eye to Eye: Facing the Consequences of Dividing Israel*, by William R. Koenig, *As America Has Done to Israel*, by John McTernan, and *The Israel Omen*, by David Brennan. (And as long as I'm pointing out thought-provoking books, check out the tangentially germane *The Harbinger: The Ancient Mystery That Holds the Secret of America's Future*, by Jonathan Cahn.)

Can the carnage be expected to continue? A USA Today article by Doyle Rice (September 24, 2013) assures us that it will. Reporting on a recent study, he writes, "Springtime severe thunderstorms could increase by as much as 40% over the eastern USA. Deadly and destructive thunderstorms—and the violent tornadoes they produce—are forecast to see a "robust" increase across parts of the U.S. in upcoming decades because of climate change, says a new, first-of-its-kind study published Monday in the *Proceedings of the National Academy of Sciences*.

"Springtime severe thunderstorms could increase by as much as 40% over the eastern U.S. (roughly from the Rockies to the Atlantic) by the end of the century, says lead author Noah Diffenbaugh of Stanford University. The study is one of the first that's found such a link between climate change and severe storms. Most previous research has been inconclusive." I might interject that the reason "previous research has been inconclusive" is that the very concept of "climate change" (which will be defined later in the article as global warming—something that hasn't actually been observed since the mid-nineties) is *also* "inconclusive." In point of fact, it's junk science—purely politically motivated and driven by the prospect of making obscene profits by selling "carbon credits."

"In recent years, severe storms and tornadoes have produced more destruction than any other weather phenomena and are typically one of the main causes of catastrophic losses in the U.S. Of the 11 weather disasters in 2012 that led to at least \$1 billion in damages, seven were caused by severe thunderstorms and tornadoes." Note that none of the 2012 tornadoes even made the top-five-costliest list, though they all topped the billion dollar mark in damages. A billion dollars here and a billion there, and pretty soon you're talking about some *real money*. "Unfortunately, tornadoes and severe thunderstorms are the extreme weather phenomena that we have the least understanding of with respect to climate change, according to Weather Underground meteorologist Jeff Masters. Additionally, more than 50 years of U.S. tornado records from the Storm Prediction Center find no increase in the number of tornadoes across the country; there are also fewer strong tornadoes."

Did you catch that? There are no more tornadoes than usual, nor are they any stronger than historic storms. So why are they all of a sudden causing so much financial havoc? Could it be that God has taken His protective hand off America's *cities*? It's one thing if a tornado tears a ten mile swath through open wheat fields; it's something else altogether if it plows through downtown Joplin, as one did on May 22, 2011, or if twin tornadoes descend on both Dallas and Fort Worth, as they did on April 3, 2012. Remember the plagues of Egypt in the book of Exodus? Yahweh crafted His plagues to dethrone the false "gods" of Egypt—the last two of which were Ra, the sun god, and the royal dynasty itself, Pharaoh's own son and heir. It seems to me that Yahweh is now doing the same thing to us—taking out our national "gods," our prosperity, pride, our misplaced illusions of invincibility, and our idiotic propensity to chalk up God's mercy to "good luck." Since World War II, we Americans have tended to fancy ourselves "too big to fail." But as mighty Rome discovered, it's just not true. Our money has "In God we trust" printed on it, but for the vast majority of Americans, that's not particularly true either. The fact is, we've been so blessed, for so long, we've forgotten where the blessings come from. Most Americans today don't think we ever had to rely on Yahweh. Perhaps He's taking steps to correct that.

Anyway, Doyle Rice continues, explaining the nuts and bolts of how thunderstorms spawn tornadoes: "Two primary ingredients are needed to produce severe thunderstorms: The first is the fuel needed for these monster storms to develop—what scientists call 'Convective Available Potential Energy' (CAPE). CAPE is created as the air in the lower atmosphere warms: The warm air rises, carrying with it moisture to higher altitudes. The second is vertical wind shear, a strong current of wind that helps spin up energy and moisture in the atmosphere. Many previous studies have found that while CAPE may increase because of global warming, wind shear may decrease, so the two ingredients cancel each other out. However, in this study, 'we're seeing that global warming produces more days with high CAPE *and* sufficient shear to form severe thunderstorms,' Diffenbaugh said. The net effect is that there will be more days overall with both high CAPE and high shear." Global warming, is it? Then why do the most destructive tornadoes strike in the spring, not the summer? And why, by the fall of 2013, had the earth's climate *cooled* so much that the arctic ice pack *increased* by a million square miles?

There have always been storms on this planet. Perhaps they're more deadly and expensive nowadays simply because there are so many humans now-it's harder to get out of the way. But storms are part of the reality Yahweh revealed to Noah after the flood: "While the earth remains, seedtime and harvest, and cold and heat, and winter and summer, and day and night shall not cease." (Genesis 8:22) The changing of the seasons—"cold and heat, winter and summer" (a.k.a. "climate change")—is the direct and inevitable result of the axis of the earth's rotation with respect to the sun. This degree of tilt (if we may read between the lines) may have been altered—increased—at the time of the flood, for Yahweh is speaking as if these "seasonal" phenomena would be a new experience for Noah. The axis currently sits at 23.45° but there are indications that the degree of tilt has changed several times throughout history (post-flood examples: the long day of Joshua— Joshua 10:13; and the events described by Habakkuk, probably in Isaiah's day— Habakkuk 3:10-11). The cause of these shifts is theorized (by Patten, Hatch, and Steinhauer in The Long Day of Joshua and Six Other Catastrophes, 1973) to be close fly-bys to Earth by the planet Mars, which in ancient times had a far more erratic orbit than presently-earning it a well-deserved reputation as the "god of war" in ancient pantheons. According to the theory, the last of these, in 701 B.C. came so close (within the orbit of our moon) that its gravitational pull not only changed Earth's axis (again), but it also shifted the orbit of Mars itself to its present, more conventional, state. I realize the theory may be an "eyebrow raiser," but the authors were *bona fide* rocket scientists and astronomers, which is to say, they're a whole lot smarter than I am, and their math is compelling.

But I digress. We were talking about storms, and their role in the coming decades. I would defer to Thomas R. Knutson, writing for the *Geophysical Fluid Dynamics Laboratory/NOAA* (Sept. 3, 2008; Revised January 30, 2013) about Atlantic-spawned hurricanes. His main conclusions were as follows:

"It is premature to conclude that human activities—and particularly greenhouse gas emissions that cause global warming—have already had a detectable impact on Atlantic hurricane activity. That said, human activities may have already caused changes that are not yet detectable due to the small magnitude of the changes or observational limitations, or are not yet properly modeled (e.g., aerosol effects). Anthropogenic [man-caused] warming by the end of the 21st century will likely cause hurricanes globally to be more intense on average (by 2 to 11% according to model projections for an IPCC A1B scenario). This change would imply an even larger percentage increase in the destructive potential per storm, assuming no reduction in storm size." But wait. It gets worse: "There are better than even odds that anthropogenic warming over the next century will lead to an increase in the numbers of very intense hurricanes in some basins—an increase that would be substantially larger in percentage terms than the 2-11% increase in the average storm intensity. This increase in intense storm numbers is projected despite a likely decrease (or little change) in the global numbers of all tropical storms. Anthropogenic warming by the end of the 21st century will likely cause hurricanes to have substantially higher rainfall rates than present-day hurricanes, with a model-projected increase of about 20% for rainfall rates averaged within about 100 km of the storm center."

There are so many variables, of course, one's conclusions depend largely upon which computer model is being used, and what assumptions are driving it. Changes in the historic methods of observing hurricane impact over the years have also made long term projections an iffy proposition. Knutson writes, "There is little evidence from current dynamical models that 21<sup>st</sup> century climate warming will lead to large (~300%) increases in tropical storm numbers, hurricane numbers, or PDI (Power Dissipation Index) in the Atlantic. But there is some indication from high resolution models of substantial (~100%) increases in the numbers of the most intense hurricanes even if the overall number of tropical storms or hurricanes decreases.... We estimate that the effect of increasing category 4-5 storms outweighs the reduction in overall hurricane numbers such that we project (very roughly) a 30% increase in potential damage in the Atlantic basin by 2100."

The puzzle has lots of pieces, and they're all in motion. The "usual suspect" blamed for raising oceanic temperature (SST—Sea Surface Temperature), which in turn is statistically correlated to hurricane incidence and intensity, is CO<sub>2</sub> emissions—greenhouse gasses. I must reiterate that (as we learned in a previous chapter) the only practical way to significantly reduce anthropogenic greenhouse gas emissions without taking most of human civilization back to the stone age is to end the practice of cutting down the rainforests—*immediately*—since this practice alone accounts for *half* of the world's anthropogenic CO<sub>2</sub>. A moratorium on ocean fishing would be helpful in that regard as well. But let's face it: realistically, neither of these things is going to happen in the real world (without divine intervention), because no one is willing to watch his own family starve in order to "save the planet" on the word of some slick politician or pedantic scientist in another country.

So Knutson addresses the issue with a refreshing eye toward balance: "Apart from greenhouse warming, other human influences conceivably could have contributed to recent observed increases in Atlantic hurricanes.... A number of anthropogenic and natural factors (e.g., aerosols, greenhouse gases, volcanic activity, solar variability, and internal climate variability) must be considered as potential contributors, and the science remains highly uncertain in these areas." And if you're willing to factor in the Bible's prophetic scenario—a nuclear war, burning up a third of the trees and all the green grass (the first trumpet judgment), pollution darkening the sun's light by one third (the fourth trumpet), and the sun going haywire, "scorching men with fire" (the fourth bowl judgment)—then all bets are off.

## Earthquakes

Like storms, earthquakes have been a part of man's experience on this planet for as long as we've been keeping records of such things. In Homer's *lliad*, for example, the god Neptune was characterized as the "Lord of the earthquake." As with storms, there is a geophysical reason for them, one that's linked to why the earth is, all things considered, habitable and hospitable, when other planets we know of are not. Earth is not a solid block of rock (as one standing on its surface might imagine). Rather, we live on a relatively thin "crust" (between 3 and 44 miles thick, depending on where you are, on a planet some 8,000 miles in diameter) that floats upon a semi-viscous molten "mantle" like an ice floe upon a frozen river. And like that ice, cracks can develop in the earth's crust, through which the mantle imposes itself upon the habitable surface—forming volcanic islands and mountains, introducing greenhouse gasses into the earth's atmosphere (or methane clathrate hydrates into the seabed), and so forth. Without this arrangement, we can surmise that the earth would be a cold, dead planet, unsuited for life as we know it, despite our perfect orbital position relative to our sun.

These crustal "ice sheets," known as tectonic plates, are not entirely stable. Temperature changes at the surface and the constant gravitational "taffy pull" of our unusually large moon keep the tectonic plates in motion, slow though it may be. Under the influences of these forces, they move, shift, rub up against each other, and can even plunge beneath their neighboring plates. In time, they can create entire mountain ranges, such as the Himalayas north of India, Europe's Alps, and the Sierra Nevada range on the west coast of North America.

The crustal rocks have "elastic" properties to some extent: that is, they can bend to a degree under the force of tectonic movement as one plate moves past (or beneath) another. But such bending causes stresses to build up, like pulling back on the rubber band of a slingshot. When force overcomes drag, it "lets go," releasing the neighboring plates to spring back into position with what can be explosive consequences: an earthquake. The more stress/energy being released, the bigger the quake (all other things being equal).

As we have seen, both the Olivet Discourse and the Book of Revelation mention earthquakes as a prominent feature of the Last Days. Yahshua spoke of them (in Matthew 24:7) as occurring in "various places." It's an interesting turn of phrase. He doesn't say they'll necessarily increase in frequency or intensity as we near the end, but He *does* say that they'll happen all over the place, implying that somehow, we'll *know* their incidence is widespread. That sort of knowledge is a factor that has become reality only within the past decade or two. The USGS website asks, "Are Earthquakes Really on the Increase? We continue to be asked by many people throughout the world if earthquakes are on the increase. Although it may seem that we are having more earthquakes, earthquakes of magnitude 7.0 or greater have remained fairly constant." What's increasing, rather, is our ability to measure, analyze, and communicate to the world the data about every temblor that happens, great or small—information that was unavailable even twenty years ago.

"A partial explanation may lie in the fact that in the last twenty years, we have definitely had an increase in the number of earthquakes we have been *able to locate* each year. This is because of the tremendous increase in the number of seismograph stations in the world and the many improvements in global communications. In 1931, there were about 350 stations operating in the world; today, there are more than 8,000 stations and the data now comes in rapidly from these stations by electronic mail, internet and satellite. This increase in the number of stations and the more timely receipt of data has allowed us and other seismological centers to locate earthquakes more rapidly and to locate many small earthquakes which were undetected in earlier years. The NEIC now locates about 20,000 earthquakes each year, or approximately 50 per day. Also, because of the improvements in communications and the increased interest in the environment and natural disasters, the public now learns about more earthquakes." It's another permutation of Daniel 12:4—"[At] the time of the end, many shall run to and fro, and knowledge shall increase."

Historically, of course, we only remember the really large quakes, or the ones that had great cultural impact or significance (like the one that struck Jerusalem during the Passion, or the one that destroyed the Colossus of Rhodes in 226 B.C.) There is no way to accurately ascribe Richter-scale magnitudes to these historic events. But for the past century or so, we've been able to gather enough data to roughly predict how many large quakes we can expect in the world. "According to long-term records (since about 1900), we expect about 17 major earthquakes (7.0-7.9) and one great earthquake (8.0 or above) in any given year."

Elsewhere, the U.S. Geological Survey lists the seventeen most powerful earthquakes in modern history (i.e., since 1900). Remarkably, all of them except for one (Tibet, in 1950) occurred near the rim of the Pacific Ocean—the so-called "Ring of Fire," the home of the world's most powerful volcanoes, earthquakes, and tsunamis. They range from 8.5 to 9.5 on the Richter scale. This measurement

system is base-10 logarithmic, which means that from one whole number to the next, the quake is ten times more powerful (so a magnitude 9 earthquake is a hundred times more powerful than one measuring Richter-scale 7, for example). The Richter scale was developed in 1935 by Dr. Carl Richter, but since mid-century, it has been largely replaced by the more versatile "moment magnitude scale," or MMS, though in theory and practice, their values are approximately the same for most quakes. Due to its familiarity, earthquakes these days are invariably *reported* as Richter values, even though the Richter scale is technically meaningless when measuring anything over a magnitude 8 event.

If you don't like large earthquakes, there are a few places you may want to avoid. Of the seventeen top shakers, five occurred in Indonesia (four of these on or near the island of Sumatra), three happened in Alaska, three in Chile, and three in Eastern Russia. The biggest recorded earthquake of all time took place in Chile, in 1960, at a magnitude 9.5. The runner-up is Anchorage, Alaska in 1964, at 9.2, followed by the 9.1 monster off Sumatra in December, 2004 that set off the most deadly tsunami in recorded history. The quake that destroyed the Fukushima nuclear reactor on the island of Honshu, Japan in March, 2011 was the fourth largest on record at a magnitude 9.0; it remains to be seen if the radiation that was (and is still being) released will eventually kill more people than the Sumatra quake and tsunami. The great earthquake of 1906 that destroyed the city of San Francisco didn't remotely make the list: it registered a magnitude of about 7.8.

I spent the first half-century of my life in Southern California, so I got rather used to earthquakes (which is not to say I learned to like them). Depending on your distance from the epicenter, you can't really feel anything below a 4.0 shaker, nor do they do any significant damage. The most common earthquakes are rather gentle, between magnitude 4.0 and 4.9, happening at a rate of a little over 10,000 per year on average worldwide. Between magnitude 5.0 and 5.9, the frequency drops to under 1,700 quakes; 6.0 to 6.9 temblors happen fewer than 150 times per year. There are about 15 quakes annually between 7.0 and 7.9 worldwide, and only one or two occur with a magnitude over 8.0. (These averages, from the U.S.G.S. again, are for the years 2000 to 2012).

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The whole time I lived in California, we were warned of what they called "The Big One," a massive earthquake expected to hit the golden state one of these days, presumably along its largest fault line, the dreaded 810-mile-long San Andreas. The stress had been relieved somewhat in the central section of the fault by the 7.9 "Fort Tijon" earthquake in 1857, and in the north by the San Francisco

quake of 1906, but the southern portion of the fault has not ruptured for over 300 years—hence all the black humor about buying up beach-front property in Palm Springs.

At the same time, geologists and seismologists have been chasing that most elusive quarry, earthquake prediction. *Wikipedia* notes, "To be useful, an earthquake prediction must be *precise* enough to warrant the cost of increased precautions, including disruption of ordinary activities and commerce, and *timely* enough that preparation can be made. Predictions must also be *reliable*, as false alarms and canceled alarms are not only economically costly, but seriously undermine confidence in, and thereby the effectiveness of, any kind of warning." The last thing seismologists want to do in regards to earthquake prediction is develop a reputation for "crying wolf." (Too bad climate scientists don't feel the same way.) To give you a feel for this, predicting hurricanes or volcanic eruptions is sort of like hunting water buffalo: it can be done, but you've got to use the really big guns. On the other hand, the accurate prediction of things like tornadoes and earthquakes is more like hunting Bigfoot. You may be able to get into the right neighborhood, but you just can't count on being able to see it coming.

I've got some good news, and I've got some bad news. The good news is that it may indeed be possible to pinpoint the date of "the big one"—not from scientific sources, but from scripture. The bad news is that "the big one" will be much bigger than anyone anticipated. It's not "merely" the total destruction of California. The earthquake in question will be a worldwide seismic event prophesied to be unprecedentedly catastrophic. It will be the first *earth*-quake worthy of the name. Admittedly, to reach the conclusions I'm about to draw (a theory I broached earlier in this book) I've had to make some observations and connect some dots. But there is no scripturally (or scientifically) sound reason why what I'm about to explain isn't eminently plausible.

Let us begin with the story of the "two witnesses," the ants who'll show up to ruin the Antichrist's picnic for roughly the entire second half of the Tribulation. When they've finished their forty-two month ministry, the Beast (i.e., the Antichrist or the demon who possesses him) will kill them, and their corpses will lie on the streets of Jerusalem for three and a half days, during which time the grizzly spectacle will be broadcast *live* (so to speak) to the whole world. But "After three days and a half the Spirit of life from God entered into them, and they stood upon their feet; and great fear fell upon them who saw them. And they heard a great voice from heaven saying unto them, 'Come up here.' And they ascended up to heaven in a cloud; and their enemies beheld them. And the same hour there was a great earthquake, and the tenth part of the city fell, and in the earthquake were slain of men seven thousand [within the city of Jerusalem, that is]: and the rest were frightened, and gave glory to the God of heaven." (Revelation 11:11-13)

There are several huge earthquakes mentioned in scripture that, of logistical necessity, must happen within a few days of the end of the Tribulation. We've just seen one of them. I have come to believe that these are all prophetic references to the same great earthquake, something I'd call "the Big One." Consider Zechariah's account of the Second Coming of Christ: "Behold, the day of Yahweh comes, and your spoil shall be divided in the midst of you. For I will gather all nations [note: not just the Muslims, as in the Battle of Magog (which also features an earthquake), but *all of the nations* this time] against Jerusalem to battle; and the city shall be taken, and the houses plundered, and the women ravished; and half of the city shall go forth into captivity, and the remnant of the people shall not be cut off from the city. Then shall Yahweh go forth, and fight against those nations, as when He fought in the day of battle...." This is clearly a reference to the Battle of Armageddon, spoken of in Revelation 16:16—the sixth bowl judgment. The Antichrist's innumerable horde makes it all the way to Jerusalem, succeeding (almost) where Gog's Islamic armies failed a few years previously-taking half the city as a prize of war, raping and looting as they go. Until this happens...

"And His [Yahweh's, i.e., Yahshua's] feet shall stand in that day upon the Mount of Olives, which is before Jerusalem on the east." This was prophesied again at Christ's ascension, in Acts 1:11. "And the Mount of Olives shall split in two, toward the east and toward the west, and there shall be a very great valley; and half of the mountain shall move toward the north, and half of it toward the south." That, my friends, is a description of an earthquake, one precisely matching the schedule and circumstances of the resurrection of the two witnesses. It should hardly be necessary to point out that the Mount of Olives is intact to this day; there is no big valley running through it: this is yet in our future. "And you shall flee to the valley of the mountains; for the valley of the mountains shall reach unto Azal: yea, you shall flee, like as you fled from before the earthquake in the days of Uzziah king of Judah: and Yahweh my God shall come, and all the saints with Him." (Zechariah 14:1-5) That last phrase, "and all the saints with Him" positively identifies this event as the Second Coming. This is exactly as it is described in Revelation 19:14—the armies of heaven (that is, the previously raptured believers) clothed in fine, clean, white linen (defined elsewhere as the "righteous acts of the saints"). As we accompany our risen, glorious King, all of us will be riding white horses, symbolic of victory.

So the great earthquake, the "Big One," is the direct result of King Yahshua returning to the world that treated Him so shabbily the last time He was here. His arrival will split the Mount of Olives in two and level a tenth of the city of Jerusalem. But I have reason to believe that the effects of this particular earthquake will spread outward from its Jerusalem epicenter to the rest of the world. There will be a "crustal tsunami," so to speak, as the very planet bows in homage to its returning King. So Isaiah writes, **"The foundations of the earth are shaken. The earth is violently broken; the earth is split open; the earth is shaken** 

exceedingly. The earth shall reel to and fro like a drunkard, and shall totter like a hut. Its transgression shall be heavy upon it, and it will fall, and not rise again." (Isaiah 24:18-20) Another prophet describes it this way: "He [Yahweh] stood and measured the earth; He looked and shook the nations. Then the eternal mountains were scattered; the everlasting hills sank low.... The mountains saw You and writhed." (Habakkuk 3:6, 10)

I may be reading too much into this, but it seems as if we're being told that all of the kinetic energy stored in fault systems all over the world (like the southern end of the San Andreas, for example) will be released all at once, creating what would amount to a *worldwide* earthquake. It's as if the world has been "holding its breath" in anticipation of this moment, and when it's Creator finally returns in glory, the planet breathes a heavy sigh of relief. (Does the phrase, "The stones will cry out" ring any bells? See Luke 19:40.) This would have the long-term effect of making earthquakes exceedingly rare upon the earth for the next, say, *one thousand years*—the very period of time Christ will reign upon the earth before He's done with it. The "new heaven and new earth" that He has promised to introduce (not to mention the New Jerusalem) need not have any physical continuity with what we know today. They will be built to accommodate a race of immortals, which means the physical requirements of the new infrastructure might be very different indeed.

Three series of seven judgments each are described in the Book of Revelation. They are not consecutive (as they may appear to the casual reader), but rather overlap to some extent chronologically. The first series, the seals, are the only ones said to be administered by the Lamb Himself-Christ-and comprise a general overview of the entire Tribulation. The "second" series, the trumpets, are specific "wake-up calls" delivered by angelic messengers. They range from nuclear war, the volcanic death of an ocean, and a meteorite poisoning the earth's fresh water supply, to darkened skies, demonic invasion, another great war (this one in the Far East), and finally, the ascension of Yahshua to the throne of Earth. The third series, the "bowl judgments," are concentrated during the antichrist's reign of terror—basically, the second half of the Tribulation. They describe plagues poured out upon the antichrist and his followers, several of them apparently being announced by the two witnesses whose resurrection was (as we saw above) punctuated by the great quake. We would expect, then, for the Big One to be a feature of one or more of Revelation's judgment series, and it would naturally be listed near the end. As it turns out, it appears to be listed in *all three* judgment series: the sixth seal, the seventh trumpet, and the seventh bowl.

Let us, then, consult the record. "And I beheld when He had opened the sixth seal, and, lo, there was a great earthquake; and the sun became black as sackcloth of hair, and the moon became as blood. And the stars of heaven fell unto the earth, even as a fig tree casts its unripe figs, when it is shaken by a mighty wind. And the heavens departed as a scroll when it is rolled together; and every mountain and island were moved out of their places." *Every* mountain and island? That's no ordinary earthquake. It's either shameless hyperbole or a description of the Big One. "And the kings of the earth, and the great men, and the rich men, and the generals, and the mighty men, and every slave, and every free man [in other words, everybody not under Yahweh's protection], hid themselves in the dens and in the rocks of the mountains, and said to the mountains and rocks, fall on us, and hide us from the face of Him that sits on the throne, and from the wrath of the Lamb, for the great day of His wrath has come; and who shall be able to stand?" (Revelation 6:12-16) This is a sideways indication that the great quake is associated with the return of the Messiah and the ascension to His earthly throne, just as we saw in Zechariah 14. Oh, and as for that rhetorical question, "Who shall be able to stand?" The only people left standing when the dust settles will be those who the Lamb Himself has *enabled* to stand. As Paul said, "Who are you to pass judgment on the servant of another? It is before his own master that he stands or falls. And he will be upheld, for the Lord is able to make him stand." (Romans 14:4)

The final trumpet judgment includes this notice: "And the seventh angel sounded; and there were great voices in heaven, saying, 'The kingdom of this world has become the kingdom of our Lord, and of His Christ; and He shall reign forever and ever.' ...And the temple of God was opened in heaven, and there was seen in His temple the ark of His covenant: and there were lightnings, and voices, and thunderings, and an earthquake, and great hail." (Revelation 11:15, 19) Again, the great earthquake is associated with the transfer of temporal power from fallen man to Living God, the "earth-shaking" event that will become a *fait accompli* at the second coming of Christ.

The seventh bowl judgment ties many of these descriptive details together, conspiring to inform us that there is but one great seismic event being revealed in all these various passages. "And the seventh angel poured out his bowl into the air; and there came a great voice out of the temple of heaven, from the throne, saying, it is done. And there were voices, and thunders, and lightnings; and there was a great earthquake, such as was not since men were upon the earth, so mighty an earthquake, and so great. And the great city was divided into three parts, and the cities of the nations fell: and great Babylon came in remembrance before God, to give unto her the cup of the wine of the fierceness of His wrath. And every island fled away, and the mountains were not found." (Revelation 16:17-20) As we saw before, although Jerusalem ("the great city") will be involved, the quake will devastate cities, islands, and mountains all over the earth. The post-earthquake topography of our planet can be expected to be quite different from its present state. "Babylon" here is not a city, but rather a symbol of every permutation of idolatry left upon the earth—named after the city where organized false worship first appeared, only a few generations after the flood of Noah. Yahweh will leave no vestiges of apostate religion undealt with.

I get the distinct impression that the effect of the "Big One" will be decidedly *more* destructive in the outlying areas than at the epicenter—near Jerusalem. The "great city" will be divided into three parts (according to the angel of the seventh bowl), and in the narrative concerning the resurrection of the two witnesses, we are told that "a tenth of the city fell." We tend to read into this that one out of ten buildings fell down, but the Greek actually implies a change in elevation—one tenth of the city of Jerusalem ended up lower than it had been. But other scriptures imply a general *raising* of the entire area. For example, we are told (in Ezekiel 47) of the healing of the nearby Dead Sea with the waters flowing into it from beneath the Millennial temple. For this to work, there would have to be an *outlet* for its waters to the ocean, but the surface of the Dead Sea is 1400 feet *below* sea level. It would appear, then, that the entire southern end of the Jordan Valley will be uplifted at least that much in this last great tectonic upheaval. At the same time, entire mountains and islands will be displaced, and whole cities will disappear, all over the earth.

As I said, this is no ordinary earthquake.

And *when* will all of this take place? Bear in mind that there is no way to prepare for it or flee from it (short of avoiding cities, islands, mountains, and anything the "whore of Babylon" has ever had her grubby hands on—which is pretty much the whole world). The only way to avoid it altogether is to *be absent* from planet earth when it strikes. But presuming one has missed the rapture, has somehow managed to make it through the entire Tribulation alive, has wisely repented before God (as described in Revelation 3:18-19), and is now looking forward to the advent of the One whom the antichrist has been trying so desperately to impersonate, how can one know the date of this ultimate good-news/bad-news story? Did not Christ Himself say, "No one knows the day or the hour?" He did indeed, but careful exegesis reveals that He was talking not about His coming in glory, but rather about the rapture of the church—a separate event which, now that you're almost seven years deep into the Tribulation, probably seems like ancient history now, though it took the whole world by surprise when it happened, and is still a big mystery to almost everyone.

The key to perceiving God's timetable is found in the Torah. It's the "Feasts" of Yahweh (better translated Convocations, Appointments, or Meetings). As I explained back in the chapter on Biblical Chronology, the first four of these seven most significant prophetic events on Yahweh's calendar were fulfilled (on the very days of their Levitical mandates) in 33 A.D. The fifth one, the Feast of Trumpets, marked the rapture of the church (an event, of course, that is still in the future as I write these words). That leaves two "Feasts" for us to explore.

Skipping over number six for the moment, the seventh and final one, the Feast of Tabernacles, clearly speaks of the commencement of Christ's earthly reign—

the time when God will come to "camp out" with men. It will take place on Tishri 15 in some future year (per Yahweh's commandment: Leviticus 23:34). And if my theory is correct, that year will be the bi-millennium of the passion, 2033—making the (Gregorian-calendar) date October 8. Not coincidentally, that day falls on a *Sabbath*, just as required in the Torah.

But it is axiomatic that the Messiah will have returned to earth *before* He assumes the throne, for there is still the little matter of Armageddon and the final destruction of "Babylon" to attend to. (See Revelation 16:19—the seventh bowl judgment.) Evil must be vanquished before Good can reign. And *that* is what is revealed by the Holy Appointment we skipped over—the sixth of the seven convocations of Yahweh: *Yom Kippurim*, or the Day of Atonement. This convocation requires that the participants "afflict their souls" before God. The verb translated "afflict" (Hebrew: *anah*) also means "to answer or respond." What is the one thing that could precipitate that sort of response (especially among Jews)? It's their great national epiphany (or as I call it, the great *oy vey*): the glorious return of King Yahshua the Messiah (you know, the One their forefathers had crucified two thousand years previously) to Jerusalem, to the Mount of Olives—precisely as Zechariah had prophesied—*proving* by doing so that He is God in the flesh.

It is *this event* that will set off the biggest earthquake in history. It is *this event* that will compel the Israelis to "afflict their souls" in the sure knowledge of their national culpability before God. It is *this event* that will oblige the nations to answer and respond to Christ's presence—or die in suicidal denial at the Battle of Armageddon. The choice, as always, is man's. But make no mistake: this event marks the end of "faith" and the beginning of "sight." When He returns, *this* will come to pass: "At the name of Jesus every knee should bow, of things in heaven, and things in earth, and things under the earth.... Every tongue [will] confess that Jesus Christ is Lord, to the glory of God the Father." (Philippians 2:10-11)

When? The Day of Atonement falls five days prior to the Feast of Tabernacles, on the 10<sup>th</sup> day of the Hebrew month of Tishri. In 2033, that will fall on October 3. But my scripture-based "earthquake prediction model" will do you no good if you're not safe in the arms of Yahshua. There is no place else to hide.

## Volcanoes

Not surprisingly, the prognosis concerning volcanoes closely parallels that of earthquakes. Both geological phenomena are tied to breaches in the earth's crust. Both have been observed for as long as man has inhabited this planet. They tend to happen in the same geographical locations. And although volcanic eruptions may *seem* to be increasing in frequency, our awareness of what's going on

beneath our feet is just as likely the result of vastly increased population density over the past half century, much better means of scientific measurement, and improved worldwide communication.

Scripture doesn't mention many volcanoes *per se*, but it does describe them and especially the effect they'll have on the earth during the Last Days. Mount Sinai—where the Torah was delivered—is said to have burned with fire, in clouds and thick darkness. Mountains are referred to as "melting" and "smoking" before the presence of Yahweh, their streams turning to pitch and their dust to brimstone. The prophet Nahum spoke against the Assyrians and their capital city, Nineveh. But it would seem Yahweh had bigger fish to fry when He instructed His prophet to say, "God is jealous, and Yahweh avenges; Yahweh avenges and is furious. Yahweh will take vengeance on His adversaries, and He reserves wrath for His enemies. Yahweh is slow to anger and great in power, and will not at all acquit the wicked.... The mountains quake before Him; the hills melt, and the earth heaves at His presence, yes, the world and all who dwell in it. Who can stand before His indignation? And who can endure the fierceness of His anger? His fury is poured out like fire, and the rocks are thrown down by Him." (Nahum 1:2-6) At the very least, Yahweh reserves the right to use volcanoes for His glory.

Descriptions of skies darkened by pollutants—dust and ash—sent aloft into the atmosphere are one indication that volcanic eruptions may be part of the Last Days picture. One volcano in particular (though it isn't *called* a volcano—it's merely described) is enlisted as the subject of the second of seven trumpet judgments—the drastic wake-up calls that will, it is hoped, startle the world into the realization that "business as usual" (that is, the purposeful ignorance or studied rejection of Yahweh's plan) will no longer be possible. We'll discuss that one at length in a bit.

But first, let us define our terms. The Global Volcanism Program of the Smithsonian Institution's National Museum of Natural History offers the following insights into how the world's volcanoes are studied and tracked today, the terminology and definitions of the science:

*"What is a volcano?* One of the most difficult problems of standardization has been the varying usage of the word 'volcano.' Definitions of 'volcano' range from individual vents, measured in meters, through volcanic edifices measured in kilometers or tens of kilometers, to volcanic fields measured in hundreds of kilometers. In a database compilation, the disadvantage of the narrowest definition is not so much the multiplicity of names introduced, as the dismembering of a single volcanic plumbing system's history into apparently unrelated separate records. The interiors of ancient volcanoes, now eroded and exposed for geologic study, show us that most subsurface magma chambers—the suppliers of lavas to overlying volcanoes—are at least several kilometers in diameter. We also know that many contemporary volcanoes grow by additions from countless flank vents as well as activity at a central crater....Another problem is simply the identification of volcanoes. Prominent, steaming cones are easy to recognize, but water, ice, erosion, collapse processes, or dense vegetation can mask very dangerous volcanoes....

*"What is an eruption?* The arrival of volcanic products at the surface of the Earth or other planetary bodies is termed an eruption. At first glance it might appear surprising that the ambiguity regarding what constitutes a volcano extends to eruptions as well. Some definitions of the word include purely gaseous expulsions, but we confine the term to events that involve the explosive ejection of fragmental material, the effusion of liquid lava, or both. Other definitions restrict eruptions to magmatic events, but the fragmental material ejected may be old as well as new. The explosive interaction of volcanically generated heat and near-surface water can cause dramatic eruptions without any fresh volcanic material reaching the surface and from a volcanic hazards perspective can be as important to document as magmatic events.

"How many active volcanoes are there in the world? The answer to this common question depends upon use of the word 'active.' At least 20 volcanoes will probably be erupting as you read these words (Italy's Stromboli, for example, has been erupting for more than a thousand years); roughly 60 erupted each year through the 1990s; 154 in the full decade 1990-1999; about 550 have had historically documented eruptions; about 1300 (and perhaps more than 1500) have erupted in the Holocene (past 10,000 years); and some estimates of young seafloor volcanoes exceed a million. (Estimates of global magma budgets suggest that roughly 3/4 of the lava reaching Earth's surface does so unnoticed at submarine mid-ocean ridges.) Because dormant intervals between major eruptions at a single volcano may last hundreds to thousands of years, dwarfing the relatively short historical record in many regions, it is misleading to restrict usage of 'active volcano' to recorded human memories: we prefer to add another identifying word (e.g. 'historically active' or 'Holocene volcano').... Perhaps the most honest answer to the number question is that we do not really have an accurate count of the world's volcanoes, but that there are at least a thousand identified magma systems—on land alone—likely to erupt in the future."

*"How long does an eruption last?* Clearly some eruptions last for a very long time, like Stromboli's 2400+ year continuing pyrotechnic. At the turn of the century the following 15 volcanoes have been erupting more or less continuously through the last three decades (the reporting span of SEAN/GVN) and are likely to remain active for some time: Stromboli and Etna (Italy); Erta Ale (Ethiopia); Manam, Langila, and Bagana (Papua New Guinea); Yasur (Vanuatu); Semeru and Dukono (Indonesia); Sakura-jima (Japan); Santa Maria and Pacaya (Guatemala); Arenal (Costa Rica); Sangay (Ecuador); and Erebus (Antarctica). However, other

eruptions end swiftly: 10% of those for which we have accurate durations lasted no longer than a single day, most end in less than 3 months, and few last longer than 3 years. The median duration is about 7 weeks.

*"Has volcanic activity been increasing?* We don't think so. A look at the number of volcanoes active per year, over the last few centuries, shows a dramatic increase, but one that is closely related to increases in the world's human population and communication. We believe that this represents an increased *reporting* of eruptions, rather than increased frequency of global volcanism: more observers, in wider geographic distribution, with better communication, and broader publication. The past 200 years show this generally increasing trend along with some major 'peaks and valleys' which suggest global pulsations. A closer look at the two largest valleys, however, shows that they coincide with the two World Wars, when people (including editors) were preoccupied with other things. Many more eruptions were probably witnessed during those times, but reports do not survive in the scientific literature.... It is reasonable to expect that increased attention after major, newsworthy eruptions should result in higher-than-average numbers of volcanoes being reported in the historical literature....

"How do scientists forecast volcanic eruptions? Scientists use a wide variety of techniques to monitor volcanoes, including seismographic detection of the earthquakes and tremor that almost always precede eruptions, precise measurements of ground deformation that often accompanies the rise of magma, changes in volcanic gas emissions, and changes in gravity and magnetic fields. Although not diagnostic individually, these techniques, when used in combination at well-monitored volcanoes, have resulted in successful predictions. At Pinatubo volcano (Philippines) in 1991, a successful forecast saved thousands of lives.... Monitoring-based forecasts are becoming much more reliable, but they remain imperfect. If scientists are fortunate, precursors to an eruption follow the same course as they followed before previous eruptions. Patterns often change, though, and wholly new behavior is observed. The best forecasts will be based on an integration of geologic history, real-time monitoring, and a deep understanding of the internal plumbing processes of the specific volcano. Even with the best of monitoring and interpretations, reliable forecasts are rarely possible more than a few days in advance of an eruption.

"Some forecasts of volcanic eruptions are based on eruption recurrence intervals, but these are notoriously unreliable for two reasons: (a) few volcanoes are sufficiently well studied to provide an accurate eruptive history over the many hundreds of years necessary to establish a reliable recurrence interval; and (b) few volcanoes maintain the same behavior for long (more often than not, as soon as a repetitive pattern becomes apparent, the volcano changes behavior). Volcano observatories make forecasts with great caution as they can have huge impacts on the affected populations, in some cases forcing people to leave behind homes, farms, and livestock. Inaccurate forecasts can lead to unnecessary obligation of scarce resources and/or undermine residents' confidence in future forecasts. Reliable forecasts, however, can be made by volcano observatory staff, who have the experience to interpret their monitoring that detects eruption precursors. Most nations with volcanoes have tasked an established observatory, run by the government or by a university, to provide eruption forecasts to the public. All of these observatories are members of the World Organization of Volcano Observatories (WOVO)."

*NBC News* offers this list of their top eight most dangerous volcanoes in the world: (1) "After 9,000 years of dormancy, the Chaiten volcano in southern Chile awoke in 2008 and began a series of eruptions that spewed ash miles into the sky. The volcano's namesake town of 4,500, just 6 miles from the spewing crater, was devastated by falling ash and floods. The eruption claimed at least one life and serves as a stark reminder that slumbering volcanoes pose grave dangers."

(2) "Italy's Mount Vesuvius is most famous for the A.D. 79 eruption that buried the cities of Pompeii and Herculaneum. Despite the dark history, millions of people today live near the volcano. The thriving mass of humanity in such close proximity to the volcano makes Vesuvius a serious contender for the world's most dangerous volcano. Scientists fear that a catastrophic eruption could hurl scalding gas-rich magma, water vapor and debris at the masses with insufficient warning time for an evacuation."

(3) "Mexico City, a metropolis of 18 million people, sits 40 miles to the east of Popocatepetl, the second tallest volcano in North America. Puebla, a town of 2 million, lies 30 miles to the west. A major eruption, scientists say, could choke the skies with ash and send massive mudslides into the crowded valleys below. The result could prove catastrophic. The volcano has been relatively quiet since a bout of activity between 1920 and 1922, but it rumbled back to life in 2000."

(4) "Merapi in Indonesia is one of the world's most active volcanoes, regularly spewing hot gas and ash miles into the sky, and sending mud and fragmented rocks down the sides. In 1994, 60 people were killed by a searing gas cloud, and about 1,300 people died when it erupted in 1930. During a bout of eruptions in 2006, many villagers refused orders to evacuate. They believe the spirits will warn when a catastrophic eruption is imminent."

(5) "Lava flows, while hot, are rarely deadly. They usually ooze slow enough that people can easily outrun them. That's not the case with the lava that flows from Nyirangongo in Africa's Democratic Republic of Congo. It has very low levels of silica, the mineral that thickens and slows lavas. In 2002, Nyirangongo's lava suddenly gushed at speeds up to 60 mph into the town of Goma, which is home to half a million people. Scientists fear that lava pooling in the crater could suddenly drain again and cause even more devastation."

(6) "After nearly a year of minor earthquakes and eruptions, Colombia's Nevada del Ruiz volcano exploded on Nov. 13, 1985. Pyroclastic flows melted the summit's snowcap. Mudflows, called lahars, raced down the mountainside. One mudflow wiped out the village of Chinchina and killed 1,927 people, according to reports. A second followed the same path as earlier lahars and swept away the town of Armero. An estimated 23,000 people died, making it Colombia's worst natural disaster."

(7) "The islands of Japan harbor more than 100 volcanoes, and a handful or so erupt every year. The majestic Mount Fuji has not erupted since 1707, but a swarm of low-frequency earthquakes in 2000 and 2001 raised the specter that the mountain was awakening from its 300-year slumber. Though Fuji has since quieted down, the risk to Tokyo, a city of 30 million people just 70 miles to the east, is very real, scientists say. A 2004 government study put the price tag of a worst-case eruption at more than \$20 billion."

(8) "Washington's 14,410-foot-tall Mount Rainier is a big attraction for many people in the Pacific Northwest. It is also a big threat, according to scientists. An estimated 3 million people live in its shadow—at least 100,000 on top of old mudflows from previous eruptions. The flows, known as lahars, are the greatest risk. Though commonly associated with major eruptions that strike with ample warning, an earthquake or small burp of rock, ash and gas could also trigger a lahar, giving residents in the path only 10 to 15 minutes to escape."

Not to be outdone, Michael Snyder reports on a sudden resurgence of volcanic activity around the Pacific Ocean's "Ring of Fire" on TheTruthWins.com (November 24, 2013). Whereas the Smithsonian Institution opines that volcanic activity only seems to be getting more intense, Snyder has concluded that it actually is. He writes: "Ten major volcanoes have erupted along the Ring of Fire during the past few months, and the mainstream media in the United States has been strangely silent about this. But this is a very big deal. We are seeing eruptions at some volcanoes that have been dormant for decades. Yes, it is certainly not unusual for two or three major volcanoes along the Ring of Fire to be active at the same time, but what we are witnessing right now is highly unusual. And if the U.S. media is not concerned about this yet, the truth is that they should be. Approximately 90 percent of all earthquakes and approximately 80 percent of all volcanic eruptions occur along the Ring of Fire, and it runs directly up the west coast of the United States. Perhaps if Mt. Rainier in Washington State suddenly exploded or a massive earthquake flattened Los Angeles the mainstream media would wake up.

"Most Americans have grown very complacent about these things, but right now we are witnessing volcanic activity almost everywhere else along the Ring of Fire. It is only a matter of time before it happens here too." Perhaps "complacent" isn't quite the right adjective. As a former Angelino, I'd describe the West Coast mindset as somewhere between fatalism and denial. They *know* something could happen, but their homes, jobs, and families are here. The risks of living on the Ring of Fire are thought of in terms of "compared to what?" If you live somewhere else, the heat will get you, or the snow, or the drought, tornadoes, or whatever. And there's no work back home in Mexico. So you stay...and pray. Or remain blissfully ignorant—whatever lets you sleep at night.

"Sadly, most Americans cannot even tell you what the Ring of Fire is. The following is how *Wikipedia* defines it: 'The Ring of Fire is an area where a large number of earthquakes and volcanic eruptions occur in the basin of the Pacific Ocean. In a 40,000 km (25,000 mi) horseshoe shape, it is associated with a nearly continuous series of oceanic trenches, volcanic arcs, and volcanic belts and/or plate movements. It has 452 volcanoes and is home to over 75% of the world's active and dormant volcanoes.' An easy way to think about the Ring of Fire is to imagine a giant red band stretching along the perimeter of the Pacific Ocean. And yes, that includes the entire west coast of the United States and the entire southern coast of Alaska.

"10 major volcanoes along the Ring of Fire have suddenly roared to life in recent months." Snyder's "hot list" includes (1) a new volcanic island 600 miles south of Tokyo, Japan, in the Ogasawara island chain; (2) Mount Sinabung in Indonesia; (3) Mount Colima in Mexico; (4) Sakurajima in Japan; (5) Fuego in Guatemala; (6) Santa María/Santiaguito in Guatemala; (7) Yaser in Vanuatu, in the South Pacific; (8) Popocatepetl in Mexico; (9) Mount Marapi in Indonesia; and (10) Kliuchevskoi on the Kamchatka Peninsula in Eastern Russia.

In another article on the same website, Mr. Snyder tied the recent spate of volcanic activity to the possibility of a new period of global cooling: "Have you noticed that this December is unusually cold so far? Could the fact that we have had a record number of volcanoes erupt in 2013 be responsible? Certainly an unusually calm solar cycle is playing a significant role in producing all of this cold weather, but the truth is that throughout human history volcanic eruptions have produced some of the coldest winters ever recorded. In fact, there have been some major eruptions that have actually substantially reduced global temperatures for two to three years. So should we be alarmed that the number of volcano eruptions this year was the highest ever recorded? Could it be possible that we are heading for a period of global cooling as a result? And if the planet does cool significantly, could that lead to widespread crop failures and mass famine? Don't

think that it can't happen. In fact, it has happened before and it is only a matter of time until it happens again."

If the planet weren't in peril, it would be rather amusing to watch the "global warming" alarmists duking it out with the "global cooling" crowd. If only they knew what you and I now know: no matter which school of thought can come up with the most compelling "facts," the earth will be in big trouble by the fourth decade of the twenty-first century for a score of *other* reasons—no matter what the climate does. But if you accept Yahweh's prophetic scripture at face value, none of it matters. This planet will once again find itself under the direct administration of its Creator and God, and as a result, it will once again become as He described it in the beginning: "very good."

In the meantime, Snyder continues, "I knew that we were seeing an unusual amount of volcanic activity around the planet so far this year. In fact, I wrote about it in my recent article entitled '*Why Have 10 Major Volcanoes Along the Ring Of Fire Suddenly Roared To Life?*' [Quoted from, above.] But I had no idea that we were on the verge of a new yearly record. So I was shocked when I visited the *Extinction Protocol* today and discovered that we have witnessed a record number of volcano eruptions in 2013.... 'This year will go down on record, as seeing the most volcanic eruptions recorded in modern history. The previous number was set in 2010, at 82 volcanic eruptions for the year. The number of volcanoes erupting across the planet has been steadily rising from a meager number of just 55 recorded in 1990. While most scientists may readily dismiss any significance to the latest figures and may be quick to say the planet is just experiencing normal geological activity, it does raise other concerns about just what may be transpiring within the interior of our planet.

"The average number of volcanic eruptions per year should be about 50 to 60; but as of December 5, 2013, we are already at 83. Volcanic eruptions are one way the planet dissipates a dangerous build-up of heat, magma, and pressurized gases. The planet's outer core is thought to flirt with critical temperatures in the range of around 4400°C (8000°F). Any rise or major fluctuation in interior gradient could have profound and disruptive effects on processes whose very properties are governed by convective heat emanating from the planet's outer core: magnetic field propagation, tectonic plate movements, sea-floor spreading mechanics, and mantle plume activity. Mantle plumes or hotspots are thought to be the central mechanism which fuels the vast underground chambers of many of the world's supervolcanoes.'

"According to climatologist Cliff Harris, we 'are seeing an increase in volcanic activity worldwide' and this could easily lead to a period of significant global cooling if it continues.... 'If volcanic activity continues to increase, and there is an eruption big enough to send millions of tons of ash and dust into the

upper layers of the atmosphere, then the Earth's temperature would likely drop at least a degree or two from present levels. This happened in June of 1991 when Mount Pinatubo exploded in the Philippines. For the following year, the Earth's temperature dropped about 1-2 degrees before recovering several years later." This despite the fact that volcanoes pump a fair amount of  $CO_2$  into the atmosphere, along with the dust and ash.

"A degree or two may not sound like a lot, but on a global scale it can be absolutely catastrophic. And this kind of thing has happened many times before. The following list comes from Wikipedia.... 'The effects of volcanic eruptions on recent winters are modest in scale, but historically have been significant. Most recently, the 1991 explosion of Mount Pinatubo, a stratovolcano in the Philippines, cooled global temperatures for about 2–3 years. In 1883, the explosion of Krakatoa (Krakatau) created volcanic winter-like conditions. The four years following the explosion were unusually cold, and the winter of 1887-1888 included powerful blizzards. Record snowfalls were recorded worldwide. The 1815 eruption of Mount Tambora, a stratovolcano in Indonesia, occasioned mid-summer frosts in New York State and June snowfalls in New England and Newfoundland and Labrador in what came to be known as the "Year without a summer" of 1816. A paper written by Benjamin Franklin in 1783 blamed the unusually cool summer of 1783 on volcanic dust coming from Iceland, where the eruption of the Laki volcano had released enormous amounts of sulfur dioxide, resulting in the death of much of the island's livestock and a catastrophic famine which killed a quarter of the Icelandic population. Northern hemisphere temperatures dropped by about 1°C in the year following the Laki eruption. In 1600, the Huaynaputina in Peru erupted. Tree ring studies show that 1601 was cold. Russia had its worst famine in 1601-1603. From 1600 to 1602, Switzerland, Latvia and Estonia had exceptionally cold winters. The wine harvest was late in 1601 in France, and in Peru and Germany, wine production collapsed. Peach trees bloomed late in China, and Lake Suwa in Japan froze early.'

"This is by far the greatest 'climate change' threat that we are facing. Something appears to be happening to the crust of the earth, and if the number of volcano eruptions continues to rise, we could be in store for absolutely catastrophic changes to our climate."

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I'd like to reemphasize a factor that Mr. Snyder pointed out a few paragraphs back: volcanic activity, as destructive as it can be, is actually a *safety valve* for the earth, dissipating the heat, magma, and gasses under pressure in the earth's

mantle. If these elements are not relieved through timely eruptions of comparatively small localized volcanoes, pressure in the earth's mantle can build to dangerous levels in regional hazards known as "supervolcanoes." And by "dangerous," I don't mean "inconvenient" or "disruptive," like the Mount St. Helens eruption of 1980. *Supervolcanoes* have the potential to be virtual continent killers, though fortunately, their eruptions tend to be hundreds of thousands of years apart.

James Seidel, writing for *News.com.au*, wrote an article entitled "Beneath Yellowstone, a volcano that could wipe out U.S." that was picked up by the *New York Post* on December 12, 2013. Don't let the tabloid-journalism hyperbole obscure the raw facts:

"It's the awe-inspiring pride of the United States—and it harbors a deadly power that could kill us all. Yellowstone National Park is pristine wilderness, full of scenic landscape and iconic hot-pools and geysers that attract tens of thousands of visitors every year. But it's what lies beneath that has scientists scurrying. We've long known that Yellowstone is merely the skin on top of a supervolcano—a giant pool of magma sitting just under the Earth's surface. Exactly *how* giant has been the subject of much speculation. Until now.

"A team from the University of Utah have told the American Geophysical Union Fall Meeting in San Francisco that Yellowstone's magma chamber is 2.5 times larger than previously thought. It is an underground cavern that measures some 55 miles by 20 miles and runs between 3 and 9 miles below the earth. If it blows it will wipe out America—and have enormous impacts on the rest of the world.... Professor Bob Smith told the BBC: 'We've been working there for a long time, and we've always thought it would be bigger ... but this finding is astounding.' The research is part of an ongoing effort to assess the true threat the molten beast represents.

"What is a supervolcano? The common picture of a volcano being a mountainous cone of ash and lava does not apply to the supervolcanoes like Yellowstone. These are vast spaces of collapsed crust that formed pools—known as calderas—under a seemingly normal surface. Only mapping reveals the gentle swell, over a space of hundreds of square kilometers, that contains the cauldron of molten magma below.

"From analysis of rock and sediment layers, scientists say another eruption is almost due—at least by geological standards. It appears the supervolcano explodes roughly once every 700,000 years. Three such eruptions are known: One was 2.1 million years ago. Another was 1.3 million years ago. The most recent was 640,000 years ago. So what would happen if Yellowstone were to erupt? Something close to Armageddon." I really wish people would stop using that word to describe natural disasters. "Armageddon" is a future "battle" in which the returning Messiah-King, Yahshua, will utterly annihilate the world's military forces brought to bear against defenseless Israel. It is the precise, focused wrath of Almighty God against those who hate Him—but it *won't* spell the death of all humanity, or even everyone in the area when it happens. The explosion of a supervolcano like the one in Yellowstone, on the other hand, would be as indiscriminate as it is deadly. But excuse my rant.

"Soil samples reveal that the last time it happened the whole of North America was smothered by ash. The lava flow was almost as great. The streams of molten rock were hundreds of miles long, and miles thick. Such was the extent of the smoke and debris cloud generated by the eruption that the climate of the entire world was affected for several centuries.

"The ongoing rumbles caused by earthquakes in and around Yellowstone National Park provided the means by which the full extent of the magma chamber was revealed. As the seismic waves moved through the ground, the different speeds of their travel were recorded by a network of seismometers. 'The waves travel slower through hot and partially molten material...with this, we can measure what's beneath,' Dr. Jamie Farrell, from the University of Utah, said. Twenty 'smaller' supervolcanoes have been found nearby, on the Utah/Nevada state border. The new study published in the journal *Geosphere* shows that these volcanoes are not active today. But, 30 million years ago, they spilled more than 5500 cubic kilometers of magma during a one-week period. 'In southern Utah, deposits from this single eruption are 4 kilometers thick. Imagine the devastation—it would have been catastrophic to anything living within hundreds of miles,' said Dr. Eric Christiansen of Brigham Young University."

Technically, a supervolcano is to be distinguished from an ordinary volcano by the amount of ejecta it produces. *Wikipedia* explains: "A supervolcano is any volcano capable of producing a volcanic eruption with an ejecta volume greater than 1,000 km<sup>3</sup> (240 cubic miles). This is thousands of times larger than normal volcanic eruptions. Supervolcanoes can occur when magma in the mantle rises into the crust from a hotspot but is unable to break through the crust. Pressure builds in a large and growing magma pool until the crust is unable to contain the pressure. They can also form at convergent plate boundaries (for example, Toba) and continental hotspot locations (for example, the Yellowstone Caldera). Although there are only a handful of Quaternary supervolcanoes, [i.e., active during the Quaternary period—1.8 million years ago to the present day] supervolcanic eruptions typically cover huge areas with lava and volcanic ash and cause a long-lasting change to weather (such as the triggering of a small ice age) sufficient to threaten species with extinction....

"Though there is no well-defined minimum explosive size for a "supervolcano," there are at least two types of volcanic eruption that have been identified as supervolcanoes: Large Igneous Provinces and Massive Eruptions.... Large Igneous Provinces (LIP) such as Iceland, the Siberian Traps, Deccan Traps, and the Ontong Java Plateau are extensive regions of basalts on a continental scale resulting from flood basalt eruptions. When created, these regions often occupy several thousand square kilometers and have volumes on the order of millions of cubic kilometers. In most cases, the lavas are normally laid down over several million years. They release large amounts of gases...." The other type of supervolcano, Massive Eruptions, are typified by the well-known Yellowstone caldera.

"Volcanic eruptions are classified using the Volcanic Explosivity Index, or VEI." Like Richter-scale measurements for earthquakes, VEI levels are base-10 logarithmic, each one being ten times more powerful (as measured by the amount of ejecta) than the previous level. "VEI-8 eruptions [dubbed 'super-eruptions'] are colossal events that throw out at least 1,000 km<sup>3</sup> (240 cu mi) Dense Rock Equivalent (DRE) of ejecta. VEI-7 events eject at least 100 cubic kilometers (24 cu mi) DRE. VEI-7 or -8 eruptions are so powerful that they often form circular calderas rather than cones because the downward withdrawal of magma causes the overlying mass to collapse and fill the void magma chamber beneath.... By way of comparison, the 1980 Mount St. Helens eruption was ["only"] a VEI-5 with 1.2 km<sup>3</sup> of ejecta.... Both Mount Pinatubo in 1991 [10 km<sup>3</sup> DRE] and Krakatoa in 1883 [25 km<sup>3</sup> DRE] were VEI-6 eruptions." *Wikipedia* lists eleven historical eruptions estimated to have been of a VEI-8 magnitude, and twenty-two at a VEI-7 level—including the three within the Yellowstone hotspot zone.

The question that should be on the mind of any prophecy researcher is, "Will the potential eruption/explosion of the earth's supervolcanoes play a role in the Last Days? And specifically, will they comprise part of the fulfillment of the great Day of Atonement earthquake predicted by the seventh bowl judgment?" Let us reprise the prophecy. "[There was] a great earthquake such as there had never been since man was on the earth, so great was that earthquake.... And every island fled away, and no mountains were to be found. And great hailstones, about one hundred pounds each, fell from heaven on people; and they cursed God for the plague of the hail, because the plague was so severe." (Revelation 16:18-21) We can count on the ground shaking violently during the eruption of a supervolcano, of course. And the "great hailstones" could (possibly) be a description of bolides from the ejecta of volcanoes instead of the ice variety. (The Greek word *chalaza*—hailstone—comes from a verb meaning "to let down from a higher place to a lower," so the emphasis is on precipitation, something falling from the sky, not water ice necessarily.) And one could reasonably posit (though we aren't specifically told) that God would want the earth's crust to reach a state of quiet equilibrium as His kingdom got underway. The kind of immense stress and geological deformation that the Yellowstone caldera is already displaying might (perhaps) be seen as a

"sword of Damocles" hanging over the heads of the nations, were it not relieved before the kingdom age commenced. That being said, the prophetic evidence for such a volcanic upheaval is less than airtight. The Bible doesn't specifically predict it, but we can't definitively rule it out, either.

Earthquakes don't block the sunlight. Volcanoes do. So I would be remiss if I didn't point out the fact that there are literally dozens of places in scripture where darkened skies are spoken of—and not all of them are explained. The sixth seal (Revelation 6:12, the fourth trumpet (Revelation 8:12), the fifth trumpet (Revelation 9:2), and the fifth bowl judgment (Revelation 16:10) all speak of darkened skies during the Tribulation. Yahshua specifically predicted darkened skies closely preceding His coming in glory: "Immediately after the tribulation of those days the sun will be darkened, and the moon will not give its light; the stars will fall from heaven, and the powers of the heavens will be shaken." (Matthew 24:29) All of these would tend to suggest that some mechanism (unnamed in scripture, but quite plausibly one or more supervolcanoes) is pumping trillions of tons of dust or ash into the air toward the end of the Tribulation.

The Old Testament too is peppered with obscure prophetic references to "darkened skies." I'll offer but one example to make my point. It is found in a prophecy against Egypt: "When I put out your light, I will cover the heavens, and make its stars dark; I will cover the sun with a cloud, and the moon shall not give her light. All the bright lights of the heavens I will make dark over you, and bring darkness upon your land,' says the Lord Yahweh." (Ezekiel 32:7-8) Although the primary fulfillment of the prophecy came to pass with the Babylonian invasion (see verse 11), its language seems a bit "over the top" for a simple temporal judgment of one apostate nation. But when we factor in the symbology of the thing, when we remember that Egypt in Biblical parlance represents "bondage in the world," it becomes apparent that Yahweh may also be referring to a literal phenomenon that will befall the whole world enslaved in bondage subsequent to the rapture. And although the nuclear war of the first trumpet judgment won't help matters, it would seem that the only mechanism capable of darkening the skies over the *entire earth* might be the eruption of a supervolcano or two.

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There's another, quite specific, volcanic threat on the prophetic horizon that we should explore. The second trumpet judgment reads as follows: "Then the second angel sounded: and something like a great mountain burning with fire was thrown into the sea, and a third of the sea became blood. And a third of the living creatures in the sea died, and a third of the ships were destroyed." (Revelation 8:8-9) The plague here

isn't typical for volcanic hazards, although "a great mountain burning with fire" is a precise definition of an ordinary volcano.

It's the "special circumstances" to which we need to pay attention. First, because this event is the subject of one of Yahweh's "trumpet judgments," we can assume that its impact will be extensive: it will somehow be far more significant than, say, Vesuvius, Mount St. Helens, or Eyjafjallajökull was. Second, this volcano is said to have been "thrown into the sea." This tells us that it is a volcanic island, not a land-based mountain. But we may also read into this that the unique threat is not a Santorini or Krakatoa-style *explosion*, leaving a caldera—basically, a big hole in the water where the mountain once stood—but rather, a gigantic *landslide* seems to fit the prophetic revelation a bit better: a mountain *thrown* into the sea. (The Greek word is *ballo*: to throw, cast, drop, or let fall into place.) Third, the repeated reference to "a third of the sea" suggests that (if all of the world's oceans are considered "the sea") the Atlantic Ocean and its adjacent seas and gulfs are being specifically identified.

Precisely how the sea will "become blood" and all of its life, including people on ships, will die, is left for us to speculate. The Fukushima nuclear reactor meltdown is, even as we speak, continuing to pour radioactive contaminants into the Pacific Ocean and threatening to slowly kill the entire ocean. I would simply note that there are no fewer than *ten* nuclear reactors on America's east coast that could conceivably be vulnerable to a mega-tsunami of the type I'm about to describe, resulting from the catastrophic collapse of an island volcano in the Mid-Atlantic Ocean. That is, at the least, a plausible explanation of what could cause the death of one third of the living creatures in the sea.

But for our present purposes, let us concentrate on the volcano itself. Have the volcanologists identified one that matches the prophetic profile's unique threat? Yes, they have. It's called the Cumbre Vieja Volcano, on the Island of La Palma, in the Spanish-owned Canary Islands, off the coast of Morocco, Northern Africa, at about the latitude of Cuba.

The definitive report on the subject was entitled *Cumbre Vieja Volcano*— *Potential collapse and tsunami at La Palma, Canary Islands*, by Steven N. Ward and Simon Day. It states, "Over the last several thousand years, the distribution and orientation of vents and feeder dykes within the mountain have shifted from a triple rift system (typical of most oceanic island volcanoes) to one consisting of a single N-S rift with westward extending vent arrays.... A future eruption near the summit of the Cumbre Vieja will likely trigger a flank failure." When Cumbre Vieja plunges into the ocean, destruction from the biggest tsunami on record is assured for influential cities on both sides of the ocean.

The report's Abstract states: "Geological evidence suggests that during a future eruption, Cumbre Vieja Volcano on the Island of La Palma may experience

a catastrophic failure of its west flank, dropping 150 to 500 km<sup>3</sup> of rock into the sea. Using a geologically reasonable estimate of landslide motion, we model tsunami waves produced by such a collapse. Waves generated by the run-out of a 500 km<sup>3</sup> slide block at 100 meters/second could transit the entire Atlantic Basin and arrive on the coasts of the Americas with 10-25 meters height [33-80 feet]." (A 150 km<sup>3</sup> slide block would be expected to generate a tsunami 3-8 meters [10-26 feet] in height.)

And Ward and Day conclude their report with this assessment: "Geological evidence suggests that during a future eruption, Cumbre Vieja Volcano on the Island of La Palma may experience a catastrophic flank collapse. For a 500 km<sup>3</sup> slide block running westward 60 km down the offshore slope at 100 m/s, our computer models predict that tsunami waves 10 to 25 meters high [i.e., up to the height of an eight-story building] will be felt at transoceanic distances spanning azimuths that target most of the Atlantic basin. Simulations of other collapse scenarios indicate that for slides that do not run too close to the tsunami wave speed, peak tsunami amplitude follows roughly in proportion to landslide volume times peak landslide velocity. (The proportionality is location-dependent, and it holds more strictly for volume and less strictly for peak velocity.) Thus, more modest assumptions on the size and peak speed of the slide make for smaller waves. For instance, a 250 km<sup>3</sup> block running westward 60 km at 50 m/s generates tsunami with about 1/4 to 3/8 the amplitude of those presented above."

Though the Cumbre Vieja threat is unique in its potential impact because of the dense population now inhabiting the American east coast, the geological scenario is by no means unprecedented: "In the past million years, dozens of lateral collapse landslides of a size comparable to the one considered here have been shed from volcanic islands in the Atlantic. If our models are correct, tsunami from these incidents should have washed several times over most coasts that have good exposure to the sea. A test of these predictions lies in whether tsunami deposits associated with specific collapses can be identified, dated, and widely correlated. Ironically, because of the more favorable preservation conditions underwater, evidence of collapse tsunami may be more widespread on the continental shelf than on land. Still, the low-lying, tectonically stable, nonglaciated margins of west Africa, the southeast United States and northeast Brazil, together with the Bahamas carbonate platform, should be particularly suitable sites for geologists to search for footprints of these occasional visitors."

Since Ward's and Day's scientific jargon is more-or-less incomprehensible to us mortals, let us consult a more "accessible" report published on *Rense.com*, an article by Steve Connor entitled "Scientists Warn of Massive Tidal Wave from Canary Island Volcano," originally published in *The Independent—London*.

Connor writes, "A wave higher than Nelson's Column and travelling faster than a jet aircraft will devastate the eastern seaboard of America and inundate much of southern Britain, say scientists who have analyzed the effects of a future volcanic eruption in the Canary Islands. A massive slab of rock twice the volume of the Isle of Man would break away from the island of La Palma and smash into the Atlantic Ocean to cause a tsunami—a monster wave—bigger than any recorded, the scientists warned.

"Most of the wave's energy, equivalent to the combined output of America's power stations for six months, would travel westwards to the American coast but enough would be flicked north towards the English Channel to cause catastrophic coastal damage. A computer model has been designed to show the way the tsunami will build after the volcano, called Cumbre Vieja, erupts on La Palma, at the western end of the Spanish island chain. It describes the almost unimaginable scale of an event that the scientists say could happen at any time within the foreseeable future. 'We're looking at an event that could be decades or a century away [note: the original paper was written in 2001]—but there will be a degree of warning beforehand,' said Simon Day, of the Benfield Greg Hazard Research Centre at University College London.

"Most of the rocky western flank of Cumbre Vieja is unstable enough to be dislodged in the next big eruption of the volcano, which is active enough to explode at least once or twice a century. Its last big event was in 1949. [There was also a small eruption in 1971 at the island's southern tip, some distance from the landslide risk area.] Such a landslide from a future eruption could travel up to 60 kilometers (37 miles) from La Palma's coast, causing the formation and then collapse of a dome of water 900 meters (3,000 ft.) high and tens of kilometers wide. The bow of this collapsing dome of water would become a giant wave, but also, as the landslide continued to move underwater, a series of crests and troughs would soon generate the 'wave train' of the tsunami. With the leading wave in front and crests pushing it on behind, it would sustain the power for the nine-hour journey to the American east coast....

"The computer model, compiled in collaboration with Steven Ward of the University of California, Santa Cruz, predicts that the tsunami will have a height of 100 meters (330 ft.) from crest to trough when it crashes into the shores of nearby north-west Africa. By the time it reached its final destination, the east coast of Florida and the Caribbean islands, the tsunami would still be up to 50 meters high. Low-lying land in Florida would be vulnerable to a sea wave that would inundate the mainland for several kilometers inland. Everything in its path would be flattened, the computer model predicted. Even though the wave would be much smaller when it reached Britain, it would still breach sea defenses because it would be larger than the biggest storm waves for which they were designed, Dr. Day said. 'For low-lying land along the south coast it could penetrate up to a mile,' he said.

"Although there is little doubt that the landslide on La Palma will happen after a volcanic eruption, the difficulty is knowing exactly when it will occur. 'Eruptions of Cumbre Vieja occur at intervals of decades to a century or so and there may be a number of eruptions before its collapse,' Dr. Day said. 'Although the year-to-year probability of a collapse is therefore low, the resulting tsunami would be a major disaster with indirect effects around the world.' The scientists are calling for better warning instruments to be placed on La Palma so that an impending eruption can be detected quickly enough to alert other areas that might be affected by a tsunami. 'Cumbre Vieja needs to be monitored closely for any signs of impending volcanic activity and for the deformation that would precede collapse. The collapse will occur during some future eruption after days or weeks of precursory deformation and earthquakes,' Dr. Day predicted. 'An effective earthquake monitoring system could provide advanced warning of a likely collapse and allow early emergency management organizations a valuable window of time in which to plan and respond,' he said."

Oh, it's "advance warning" you're looking for, Dr. Day? A little more time to evacuate the entire population of the eastern seaboard of the western hemisphere, all the way from Iceland to Rio de Janeiro? Well, perhaps I can help with that. My insights, however, come not from geology or volcanology, but from Biblical prophecy. They're not going to save many lives, I'm afraid—for reasons that will soon become apparent. And I'm the first to admit that there are some assumptions behind my conclusions, reasonable though they may be.

Assumption #1: The events in the three judgment series (seals, trumpets, and bowls) in the Book of Revelation seem to be listed chronological order *within each series* (although the series themselves overlap to some extent). In the trumpet judgments, the "great mountain burning with fire being thrown into the sea" is the second in the series. The "bad news" is that the *first* trumpet judgment announces what anyone living after the close of World War II would recognize as thermonuclear war, waged over one third of the planet—America, Russia, Europe, and the Middle East. So the Cumbre Vieja tsunami I've described will in some cases merely add insult to injury: once a city has been nuked, a tsunami is just salt in the wound.

We still don't have any insight into the timing of the event, however. That's where the *third* trumpet judgment comes into play. It describes an asteroid, a "great star from heaven burning like a torch" that will play havoc with the world's fresh water supply. Assumption #2 would be that this asteroid is the one first discovered (ironically enough) during the great Christmastime 2004 South Asian tsunami. Originally dubbed 2004-MN<sub>4</sub>, it is now known by the designation 99942

Apophis. I'll discuss it in more detail in the next section. But for now, note that the timing of this asteroid's earth-approach has been pinpointed by astronomers: Friday, April 13, 2029.

If my assumption as to the identity of the third trumpet judgment's hazard is correct, then the eruption and collapse of Cumbre Vieja would have to come prior to that date. To put things into perspective, all my research has led me to the conclusion that Christ's Millennial reign will commence on the Feast of Tabernacles, 2033 (another "assumption," granted, but one that is, as we have seen over the past few chapters, eminently plausible considering the shape in which the world finds itself at this present moment). That would place the Apophis asteroid's advent about a year before the mid-point of the Tribulation (which makes perfect sense, since the "demonic" trumpet judgments, which we can safely assume will coincide with the three and a half year reign of the antichrist, don't begin until trumpet blast number five). This also means the first half of the Tribulation is going to be quite busy, with the covenant of peace (Daniel 9:27), the building of the third Jewish temple, and the Gog-Magog Muslim-Israeli regional war, which will escalate into the global-scale nuclear war of the first trumpet judgment. If I had to guess, I'd say the first three trumpet judgments will all come within a very short span of time-a few months, at most—in the winter and spring of 2029.

Is that enough of a warning for you, Dr. Day?

### Asteroids and Meteorites

A glance at our moon through a telescope reveals what a shooting gallery our solar system is. Its surface is pock marked with craters from the impacts of thousands of meteorites onto its surface. Earth would look the same way, were it not for our atmosphere (in which all but the largest meteorites are burned up as they approach the surface), and geological processes and vegetation, which tend to disguise and conceal the bigger hits over time.

Today, we live with the constant knowledge that the potential for an earthkilling asteroid strike is always there, as remote as the chances on any given day might be. A few reminders from our planet's history are enough to keep us cognizant of the threat. It is believed by many that the rather sudden demise of the dinosaurs about sixty-five million years ago could have been caused by a meteor strike upon Mexico's Yucatan Peninsula—the Chicxulub event, in which a meteorite six miles wide impacted the earth, creating a crater 110 miles across, putting enough dust and debris into the atmosphere to lower the temperature worldwide, in turn altering the environment to the point where the dinosaurs could no longer survive. Arguably the best preserved meteor crater on earth is called (intuitively enough) Meteor Crater, just outside Winslow, Arizona. (It is formally known as Barringer Crater, named after the man who first suggested that it was formed by a meteor, not a volcano.) It was formed by an asteroid strike about 50,000 years ago. The crater is a mile across and 550 feet deep, suggesting that the meteor that formed it was about 50 meters across. (Note on terminology: a hunk of rock floating around in space is called an asteroid—after *aster*, the Greek word for "star." When it enters the earth's atmosphere, friction with the air causes it to burn up or vaporize; at this stage it is known as a meteor—or in common vernacular, a "shooting star." If any of it survives and impacts the surface, it is called a meteorite.)

Several other notable meteor strikes are described at *HowStuffWorks.com*. "At 186 miles wide, Vredefort Dome in South Africa is the site of the biggest impact crater on Earth. And at an estimated two billion years old, it makes the Chicxulub Crater look like a spring chicken. Today, the original crater, which was caused by a meteorite about six miles wide, is mostly eroded away, but what remains is a dome created when the walls of the crater slumped, pushing up granite rocks from the center of the meteorite strike.

"Second in size only to the Vredefort Dome, the Sudbury Basin is a 40-milelong, 16-mile-wide, 9-mile-deep crater [originally, though it's much shallower today] caused by a giant meteorite that struck Earth about 1.85 billion years ago. Located in Greater Sudbury, Ontario, the crater is actually home to about 162,000 people. In 1891, the Canadian Copper Company began mining copper from the basin, but it was soon discovered that the crater also contained nickel, which is much more valuable, so the miners changed course. Today, the International Nickel Company operates out of the basin and mines about 10 percent of the world's nickel supply from the site.

"The Hoba Meteorite, found on a farm in Namibia in 1920, is the heaviest meteorite ever found. Weighing in at about 66 tons, the rock is thought to have landed more than 80,000 years ago. Despite its gargantuan size, the meteorite left no crater, which scientists credit to the fact that it entered Earth's atmosphere at a long, shallow angle. It lay undiscovered until 1920 when a farmer reportedly hit it with his plow. Over the years, erosion, vandalism, and scientific sampling have shrunk the rock to about 60 tons, but in 1955 the Namibian government designated it a national monument, and it is now a popular tourist attraction.

"The Tunguska Meteorite, which exploded near Russia's Tunguska River in 1908, is still the subject of debate nearly 100 years later. It didn't leave an impact crater, which has led to speculation about its true nature. But most scientists believe that around 7:00 A.M. on June 30 a giant meteor blazed through the sky and exploded in a huge ball of fire that flattened forests, blew up houses, and

scorched people and animals within 13 miles. Scientists continue to explore the region, but neither a meteorite nor a crater have ever been found." This one calls for closer study, for it bears some striking similarities to a future meteor strike mentioned in prophetic scripture.

I might also mention one other scripturally significant historic meteor strike the one that formed the Burckle Abyssal Crater in the Indian Ocean about 5,000 years ago. Powerful enough to cause an 18-mile wide crater 12,500 feet beneath the surface of the Indian Ocean, its timing and placement make it a plausible trigger mechanism for the flood of Noah, described in Genesis 6-9. As in the Sudbury, Ontario crater, pure nickel has been found in its ejecta—an element that melts at 1453° C, meaning that the projectile had to have reached temperatures at least that high. Thus it is no stretch at all to envision millions of tons of water *vapor* being sent aloft during such an impact—and deposited back to the earth over the next forty days and nights as an unrelenting rainstorm. The "flood" proper, however, would have been caused within hours by a massive tsunami, wiping out Noah's entire civilization in one clean sweep. It has been calculated that this impact released two million megatons of energy—over *1.3 billion* times as powerful as the WWII Hiroshima explosion!

And as I mentioned earlier in this chapter, certain mysterious phenomena mentioned in scripture, like the famous "Long Day" of Joshua and the receding shadow on the steps of Ahaz given as a sign to Judah's King Hezekiah (II Kings 20:8-11), could most "easily" be explained by the passing of a large asteroid (or small planet) within the gravitational field of the earth, shifting its axis slightly relative to the sun. (That is, it's "easy" for me to hypothesize; it's mind-bendingly difficult to pull off such a stunt in the real universe without killing the planet at the same time—unless You're God, of course, and You're trying to teach us witless humans something about your awesome power and perfect foreknowledge.)

Most of the asteroids in our solar system originate in the asteroid belt occupying the orbital space between Mars and Jupiter. Everything from interplanetary dust to chunks of rock big enough to have a gravitational life of their own float in solar orbit just where we might have expected a planet to form, as ours did. But (as *Wikipedia* explains), "Between Mars and Jupiter, gravitational perturbations from Jupiter imbued the protoplanets with too much orbital energy for them to accrete into a planet. Collisions became too violent, and instead of fusing together, the planetesimals and most of the protoplanets shattered. As a result, 99.9% of the asteroid belt's original mass was lost in the first 100 million years of the Solar System's history."

The gas-giant planets, Jupiter and Saturn, are quite effective in sweeping many of the biggest threats out of circulation—making our earth a much safer place than it would have been otherwise. Scilosophers (scientist-philosophers) routinely presume that the odds for earthlike planets—the right size and distance from their stars—strongly imply that "life must have evolved millions of times throughout the universe." One of the factors they invariably overlook, however, is that without a gas giant like Jupiter to suck in stray asteroids—orbiting the star at exactly the right distance from the "life-candidate planet"—any life that *did* spontaneously arise (*cough, choke*) would be snuffed out by one of the world-killer meteors that would invariably strike the planet every couple of million years. The asteroid factor complicates the already-impossible math a thousand times over.

The website of the University of Hawaii's *Institute for Astronomy* notes: "Since it formed over 4.5 billion years ago, Earth has been hit many times by asteroids and comets whose orbits bring them into the inner solar system. These objects, collectively known as Near Earth Objects or NEOs, still pose a danger to Earth today. Depending on the size of the impacting object, such a collision can cause massive damage on local to global scales. There is no doubt that sometime in the future Earth will suffer another cosmic impact; the only question is *When?*'. There is strong scientific evidence that cosmic collisions have played a major role in the mass extinctions documented in Earth's fossil record. That such cosmic collisions can still occur today was demonstrated graphically in 1994 when Comet Shoemaker-Levy 9 broke apart and 21 fragments, some as large as 2 km in diameter, crashed into the atmosphere of Jupiter. If these fragments had hit Earth instead, we would have suffered global catastrophes of the kind that inspire science fiction movies.

"The dangers posed by these intruders in the inner solar system are now the subject of serious scientific investigation.... Most of the asteroids and comets in our solar system pose no danger to our planet. But, for every thousand or so of those objects, there is one with an orbit crosses that of Earth, raising the possibility of a future collision. In 1991 the U.S. Congress directed NASA to conduct workshops on how potentially threatening asteroids could be detected, and how they could be deflected or destroyed. This mandate led to the *Spaceguard Survey Report* in 1992. In 1994 the House Committee on Science and Technology directed NASA, in coordination with the DOD, to work with the space agencies of other countries to identify and catalogue within 10 years the orbital characteristics of 90% of all comets and asteroids larger than 1 km and in orbits that cross the orbit of Earth. Following the 2003 NASA report from the Near-Earth Object Science Definition Team, Congress went even further and in 2005 assigned NASA the task of detecting 90% of near-Earth objects with a size greater than 140 meters in diameter by the year 2020.

"In response to these mandates from Congress, several programs have been undertaken to map the orbits of large NEOs that might pose a danger to Earth. These include the following projects: Lincoln Near Earth Asteroid Research (LINEAR); Lowell Near Earth Object Search (LONEOS); Near-Earth Asteroid Tracking (NEAT); Spacewatch; and Catalina Sky Survey. These search programs have discovered hundreds of thousands of main-belt asteroids, and have identified thousands of NEOs. They have made great progress toward meeting the Congressional mandate and have cataloged most, but not all, of the 1-km and larger NEOs—the ones that are most likely to produce a global catastrophe, such as a mass extinction, should they collide with Earth. Pan-STARRS will complete the survey of all 1-km diameter objects, and will detect most of the dangerous objects down to 300 meters in diameter—objects that can cause major regional catastrophes should they hit the Earth. What can be done if one of these surveys finds an asteroid on a collision course with the Earth? Scientists and engineers at the B612 foundation are looking at ways of using a spacecraft to gently change the orbit of an asteroid. One promising approach is the 'gravity tractor' invented by NASA astronauts Ed Lu and Stan Love."

There it is: the new wrinkle that separates the attitude of Last Days Man from that of the human race throughout history: we now assume that "*there was no Creator, so there is no god to protect us from planet-killing asteroids. But we're smarter than any god we could have imagined anyway: we can and will protect ourselves.*" It's all just one more example of what Yahweh told His prophet 2,600 years ago: "[At] the time of the end, many shall run to and fro, and knowledge shall increase." (Daniel 12:4) But considering how we've handled the other potential planet-killing problems that plague the earth in these times, I'd say our self-confidence is somewhat over-rated. With our track record, I'd say the odds are at least 50-50 that any asteroid we tried to nudge out of the way would end up *coming even closer* due to our bungling arrogance.

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I mentioned earlier that the Tunguska meteor of 1908 bears a striking resemblance to something about which we were warned in prophetic scripture. Judging by the damage it did to the Siberian forest, scientists have estimated that the meteor that fell was about 300 meters in diameter, though no meteorite was ever found. Rather, it appears to have completely vaporized in the atmosphere as it approached the earth at a low angle. A bit shallower approach, and it would have missed us altogether.

The reason I bring it up again is that history is (possibly) about to repeat itself. As you know, the "theory" that got me exploring the chronology of the Last Days from so many different angles led me to conclude (strictly from scriptural evidence) that the Millennial kingdom of Christ would commence on the Feast of Tabernacles, 2033. The seven years (actually, an even 2,520 days) preceding that event are called the Tribulation, the Time of Jacob's Trouble—the last "week" (seven-year period) of the amazing Daniel 9:24-27 prophecy. Furthermore, the "intermediate" judgment series in the Book of Revelation is comprised of seven "trumpet judgments," the third of the series (following what sound like thermonuclear war and a great volcano-tsunami event) being this one: "Then the third angel sounded: And a great star [Greek: *aster*] fell from heaven, burning like a torch, and it fell on a third of the waters became wormwood [that is, bitter or poisonous], and many men died from the water, because it was made bitter." (Revelation 8:10-11)

A "great star falling from heaven burning like a torch" is the classic description of a meteor—an asteroid that has entered the earth's atmosphere. But note what John says about the *effect* of this meteor. It didn't "strike the earth," forming a big crater, setting cities on fire, or killing men outright. *That* you might expect with a direct hit. But what *is* predicted, strangely enough, is the poisoning of a third of the world's fresh water supply—not quite what you'd anticipate.

Is that even *possible* for an asteroid? Yes. According to NASA's University of Arizona Space Imagery Center, "The amount of this sulfur [generated by a meteor strike] can be substantial, because meteoritic materials contain up to 6.25% weight percent sulfur." The asteroid we're going to consider is estimated to weigh in at  $4.6 \times 10^{10}$  kg—over 50 million tons. So we're talking about well in excess of *three million tons* of pure sulfur suddenly being vaporized into the earth's atmosphere. What can we expect if/when that happens?

NASA provides the answer: "Consequently, even if the asteroid or comet does not hit a Sulfur-rich target, it can still cause dramatic increases in the total amount of atmospheric sulfur. Once vaporized, this sulfur can react with water to form sulfate (or sulfuric acid) particles. These particles can greatly reduce the amount of sunlight that penetrates to the surface of the earth for a period of up to several years. Over time, the sulfate will settle out of the stratosphere (upper atmosphere) into the troposphere (lower atmosphere) where they can form acid rain which can have additional environmental and biological effects." Acid rain would seem to be a pretty good twenty-first century definition of "wormwood." Just my opinion, of course.

The asteroid I have in mind has been tracked by the world's astronomers since it was first noticed late in 2004 (ironically, just when the world was dealing with the great Christmas tsunami in South Asia). It has been designated 99942 Apophis (named after an ancient Egyptian god—a.k.a. Apep—who was characterized as a serpent or dragon who tried to eat the Sun. He was the personification and deification of darkness and chaos. It kind of makes you wonder what the scientists who named it were *really* thinking). What first drew my attention concerning the Apophis asteroid was its schedule, its timing. It's due to arrive at Earth on Friday, April 13, 2029—*precisely* when you'd expect the third trumpet judgment to arrive if my "2033" theory is correct: about a year before the Tribulation's mid-point. You couldn't make this stuff up.

Not only is this threat about the same size as the Tunguska meteor of 1908, we can be reasonably sure (from its Biblical description) that it will never actually impact the earth. As with the Tunguska event, no single meteorite will be found. Rather, I expect Apophis to break up in the atmosphere (if not before) into a Shoemaker-Levy type of configuration—a string of smaller meteors conspiring to fill the skies with sulfur dioxide, producing acid rain over a third of the planet's surface. That, at least, would fit the scriptural description.

Soon after Apophis was discovered, the astronomers fine-tuned their calculations, and came to the conclusion that the asteroid (though it would actually pass *closer* to the earth than they originally thought) would "definitely" miss us. Of course, these guys were trained in the same schools that produced the scientists who said the north polar ice cap would "definitely" have melted by 2013—so forgive me if I don't blithely buy their assurances. A lot could happen between now and 2029: how many Volkswagen-sized pieces of space debris would Apophis have to hit before our scientists' careful calculations were out the window? This far out, the margin of error is incalculable.

At the moment, though, the scientists have convinced themselves that "it will be peace in our time" as far as this particular astral threat is concerned. In a February 21, 2013 article entitled "Apophis Risk Assessment Updated," Steve Chesley and Davide Farnocchia of the NASA/JPL Near-Earth Object Program Office wrote, "A recent study has updated the impact hazard assessment for 99942 Apophis, a 325-meter diameter near-Earth asteroid that has been the focus of considerable attention after it was found in December 2004 to have a significant probability [originally assessed at an unprecedented 1 in 38 chance] of Earth impact in April 2029. While the 2029 potential impact was ruled out within days through the measurement of archival telescope images, the possibility of a potential impact in the years after 2029 continues to prove difficult to rule out. Based on extensive optical and radar position measurements from 2004-2012, Apophis will pass the Earth in 2029 at an altitude of 31,900 +/- 750 km (about 5 +/- 0.1 Earth-radii above the surface of the Earth)."

To put things in perspective, that's a *razor-burn* fly-by as these things go: it's expected to pass 19,822 miles (give or take 466) above the surface of a planet

that's only about 8,000 miles in diameter. The distance to the moon is 238,900 miles (384,400 km), so we're talking coming within *one twelfth* of the distance of the moon—well within the orbits of our own geosynchronous satellites, for that matter. Mind you, the math has been worked out sixteen years ahead of its ETA, and the average orbital speed of the Apophis asteroid is 30.728 kilometers per second—68,740 miles per hour. So please don't try to tell me that *nothing* could possibly happen in that length of time, traveling at that rate of speed, that would be sufficient to alter its course enough to let it burn up in Earth's atmosphere. I wasn't born yesterday.

Chesley and Farnocchia's primary concern (having assured us that Apophis poses no risk in 2029) is on how close the asteroid might come in future near-Earth passes. But then they drop this potential bombshell admission: "The current knowledge is now precise enough that the uncertainty in predicting the position in 2029 is completely dominated by the so-called Yarkovsky effect, a subtle nongravitational perturbation due to thermal re-radiation of solar energy absorbed by the asteroid. The Yarkovsky effect depends on the asteroid's size, mass, thermal properties, and critically on the orientation of the asteroid's spin axis, which is currently unknown." I would note that its mass isn't known with any degree of certainty, either. It is usually assumed that such bodies are composed largely of heavy iron and nickel, but what if this bad boy is ten or fifteen percent sulfur, as the Bible seems to suggest? NASA's calculations based on the asteroid's presumed mass and thermal properties would be worthless. "This means that predictions for the 2029 Earth encounter will not improve significantly until these physical and spin characteristics are better determined." In other words, they won't be able to know for certain if Apophis will fit the Bible's profile until it's far too late to do anything about it—presuming such a thing were possible.

Am I *certain* that the 99942 Apophis asteroid will prove to be the fulfillment of the third trumpet judgment of Revelation 8? No, of course not. But I *am* certain that God's word cannot fail. For my money, though, this one presents far too many intriguing coincidences to ignore or explain away. Like the Cumbre Vieja volcano, the Biblical parallels are striking and undeniable.

#### Solar Issues

I guess it shouldn't be terribly surprising that unregenerate men throughout history have imagined the sun to be some sort of god. After all, the sun is one of the things that makes life possible on Earth. If our planet's orbit wasn't precisely where it is relative to this rather ordinary star, life like ours would not be sustainable here. That being said, the sun is not a particularly benign place. It goes through cycles of violence and quiet that can affect the weather here on Earth sometimes drastically. Like the God who made it, the sun is both a friend and a potential threat—it gives life and it has the power to take it away.

Like so many other things in this world, the sun is one more example of Yahweh's ability and willingness to balance incredibly potent natural forces on a razor's edge for our benefit. For mortal beings to inhabit an ecosphere as benign as ours, yet at the same time so inherently dangerous, demonstrates (to me, at least) that an Intelligent Being of unimaginable power and wisdom must be upholding and sustaining it all. Disallowing the Creator's handiwork requires either blindness, insanity, or poor math skills.

The issues or threats we face from our sun (and other stars) are of several basic and interrelated types: sunspots, solar flares, coronal mass ejections, geomagnetic storms, solar prominences, solar proton events, and cosmic rays. Thankfully, God has built safeguards into the design of our planet against all of these hazards. While stars are essentially just big balls of hydrogen and helium in which constant nuclear fusion reactions are going on (a process that's absolutely awe-inspiring), the primary threats to our world are not heat related *per se*, but electrical—i.e., magnetic.

Sunspots are intense magnetic phenomena that appear temporarily on the surface of the sun, usually in pairs with opposite magnetic poles. They appear to be where the solar emanations that effect the earth originate. Sunspots are much cooler and darker than the surrounding solar surface, but that's only by contrast. *Wikipedia* notes, "Although [sunspots] are at temperatures of roughly 3,000–4,500 K (2,700–4,200°C), the contrast with the surrounding material at about 5,780 K (5,500°C) leaves them clearly visible as dark spots, as the luminous intensity of a heated black body (closely approximated by the photosphere) is a function of temperature to the fourth power. If the sunspot were isolated from the surrounding photosphere it would be brighter than the Moon. Sunspots expand and contract as they move across the surface of the Sun and can be as small as 16 kilometers (10 miles) and as large as 160,000 kilometers (100,000 miles) in diameter, making the larger ones visible from Earth without the aid of a telescope. They may also travel at relative speeds of a few hundred meters per second when they first emerge onto the solar photosphere.

"Manifesting intense magnetic activity, sunspots host secondary phenomena such as coronal loops (prominences) and reconnection events. Most solar flares and coronal mass ejections originate in magnetically active regions around visible sunspot groupings." It is axiomatic, then, that the more sunspot activity we observe, the more significant will be the effect of solar activity upon our own climate. Their longevity on the sun's surface is somewhat surprising: "Magnetic pressure should tend to remove field concentrations, causing the sunspots to disperse, but sunspot lifetimes are measured in days or even weeks.... There is a powerful downdraft underneath each sunspot, forming a rotating vortex that concentrates the magnetic field. Sunspots can thus be thought of as self-perpetuating storms, analogous in some ways to terrestrial hurricanes....

"A solar flare is a sudden brightening observed over the Sun's surface or the solar limb, which is interpreted as a large energy release of up to  $6 \times 1025$  joules of energy, about a sixth of the total energy output of the Sun each second or 160,000,000,000 megatons of TNT equivalent.... They are often followed by a colossal coronal mass ejection, also known as a CME. The flare ejects clouds of electrons, ions, and atoms through the corona of the sun into space. These clouds typically reach Earth a day or two after the event.... X-rays and UV radiation emitted by solar flares can affect Earth's ionosphere and disrupt long-range radio communications....

"Flares occur when accelerated charged particles, mainly electrons, interact with the plasma medium.... The phenomenon of magnetic reconnection is responsible for CMEs and solar flares. Magnetic reconnection is the name given to the rearrangement of magnetic field lines when two oppositely directed magnetic fields [as in sunspot pairs] are brought together. This rearrangement is accompanied with a sudden release of energy stored in the original oppositely directed fields." I've heard it described as the sort of effect you get when you stretch out a rubber band and let it snap back: energy is released explosively. Whether or not these flares and their resulting CMEs affect the earth is largely a matter of luck: if the sunspots in which they're generated aren't facing toward the earth, the resulting CME or solar flare is likely to miss us altogether. So as with earthquakes or volcanoes, the chances of one happening to you on any given day are quite small—but the potential is always there.

These CMEs are massive bursts of solar wind—magnetic fields rising far above the solar corona, sometimes projecting far out into space. "Coronal mass ejections release huge quantities of matter and electromagnetic radiation into space above the sun's surface, either near the corona (sometimes called a solar prominence), or farther into the planet system, or even beyond ('interplanetary' CMEs). The ejected material is a plasma...." Plasma is the fourth state of matter (the other three being solid, liquid, and gaseous). It behaves like an extremely hot ionized gas in which some or all of the electrons have been torn from their parent atoms.

How do these things affect or endanger us here on Earth? "When the ejection is directed toward the Earth and reaches it as an interplanetary CME, the shock wave of the traveling mass of Solar Energetic Particles causes a geomagnetic storm that may disrupt the Earth's magnetosphere, compressing it on the day side and extending the night-side magnetic tail. When the magnetosphere reconnects on the nightside, it releases power on the order of terawatt scale, which is directed back toward the Earth's upper atmosphere...." The earth's magnetosphere is the part of our planet's magnetic field that resides in the upper atmosphere, above the ionosphere, extending out into space. It protects the earth from inbound cosmic rays and helps to preserve the ozone layer—which in turn shields us from ultraviolet radiation. More on this magnetic field in a bit.

"Coronal mass ejections, along with solar flares of other origin, can disrupt radio transmissions and cause damage to satellites and electrical transmission line facilities, resulting in potentially massive and long-lasting power outages. Humans at high altitudes, as in airplanes or space stations, risk exposure to relatively intense so-called cosmic rays. Cosmic rays are potentially lethal in high quantities. The energy absorbed by astronauts is not reduced by a typical spacecraft shield design."

You may be protesting, "I don't spend a whole lot of time in outer space, so I guess I'm safe." *You* may be. Your electricity-dependent way of life, not so much. "The largest recorded geomagnetic perturbation, resulting presumably from a CME, coincided with the first-observed solar flare on September 1, 1859, and is now referred to as the Carrington Event, or the solar storm of 1859. The flare and the associated sunspots were visible to the naked eye (both as the flare itself appearing on a projection of the sun on a screen and as an aggregate brightening of the solar disc). The flare was independently observed by English astronomers R. C. Carrington and R. Hodgson. The geomagnetic storm was observed with the recording magnetograph at Kew Gardens. The same instrument recorded a crochet, an instantaneous perturbation of the Earth's ionosphere by ionizing soft X-rays. This could not easily be understood at the time because it predated the discovery of X-rays by Röntgen and the recognition of the recently created US telegraph network, starting fires and shocking some telegraph operators."

The point is that electronic communications and conveniences were in their infancy in 1859. If the same sort of focused massive solar event were to occur today (now that *everything* runs on electronics and microchips), the effect upon human civilization as a whole could be devastating. In our quest for efficiency through electronics, the human race has, by and large, made itself incredibly vulnerable. It's one more thing to remind us that what could happen to this generation was not even possible half a century ago. If the Carrington Event were to repeat itself today, the Amish would be about the only people in America who didn't get the memo. I'm not anti-technology, by any means. I'm not a curmudgeon who thinks we would be somehow "holier" if we lived without electricity or other modern conveniences. Technology is spiritually neutral: it can be used for either good or evil. The printing press and the invention of movable type is a perfect example. But humanity has never before been this *dependent* on its technology; we have never been nearly this vulnerable to something the sun could do. The signs are everywhere you look, and the signs read: "We are living in the next-to-last days." Things ain't what they used to be.

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Every eleven years or so, the sun 'cycles.' That is, its magnetic activity goes through a series of highs and lows, something we on the earth can observe most readily by tracking the number and size of sunspots. The peak of sunspot activity during the cycle is called Solar Maximum, and the low point is known as Solar Minimum. Our experience has taught us to expect more frequent solar flares and coronal mass ejections as well during these eleven year peaks, with periods of relative quiet between them. The frequency of solar flares varies from an average of roughly three per day when the Sun is at Solar Maximum to less than one a week during Solar Minimum.

Sunspots aren't the only solar phenomenon that are cyclical in nature. Dr. Tony Phillips, writing for NASA in August, 2013, reported, "Something big is about to happen on the sun. According to measurements from NASA-supported observatories, the sun's vast magnetic field is about to flip. 'It looks like we're no more than three to four months away from a complete field reversal,' said solar physicist Todd Hoeksema of Stanford University. 'This change will have ripple effects throughout the solar system.' The sun's magnetic field changes polarity approximately every 11 years. It happens at the peak of each solar cycle as the sun's inner magnetic dynamo re-organizes itself. The reversal will mark the midpoint of Solar Cycle 24. Half of 'solar max' will be behind us, with half yet to come."

Actually, this "flip" has already taken place as I write these words, just as predicted. The last solar magnetic pole reversal took place in 2001, so the one that happened at the end of 2013 is actually a little late, as these things go. What remains to be seen is whether or not the effects of this "regularly scheduled" occurrence will be severe enough to disrupt life on the earth.

"Hoeksema is the director of Stanford's Wilcox Solar Observatory, one of the few observatories in the world that monitors the sun's polar magnetic fields. The poles are a herald of change. Just as Earth scientists watch our planet's polar regions for signs of climate change, solar physicists do the same thing for the sun. Magnetograms at Wilcox have been tracking the sun's polar magnetism since 1976, and they have recorded three grand reversals—with a fourth in the offing." There are signs in our own skies as a solar pole reversal approaches: both the aurora borealis and its southern counterpart, the aurora australis, become broader, more frequent, and more easily visible.

"Solar physicist Phil Scherrer, also at Stanford, describes what happens: 'The sun's polar magnetic fields weaken, go to zero and then emerge again with the opposite polarity. This is a regular part of the solar cycle.' A reversal of the sun's magnetic field is, literally, a big event. The domain of the sun's magnetic influence (also known as the 'heliosphere') extends billions of kilometers beyond Pluto. Changes to the field's polarity ripple all the way out to the Voyager probes, on the doorstep of interstellar space.

"When solar physicists talk about solar field reversals, their conversation often centers on the 'current sheet.' The current sheet is a sprawling surface jutting outward from the sun's equator where the sun's slowly rotating magnetic field induces an electrical current. The current itself is small, only one tenbillionth of an amp per square meter (0.0000000001 amps/m<sup>2</sup>), but there's a lot of it: the amperage flows through a region 10,000 km thick and billions of kilometers wide. Electrically speaking, the entire heliosphere is organized around this enormous sheet. During field reversals, the current sheet becomes very wavy. Scherrer likens the undulations to the seams on a baseball. As Earth orbits the sun, we dip in and out of the current sheet. Transitions from one side to another can stir up stormy space weather around our planet."

The "current sheet" that's generated by these cyclical solar magnetic field reversals offers some protection against potentially harmful "cosmic rays," energetic particles from deep space that constantly bombard the earth at nearly the speed of light. Cosmic rays, generated by supernova explosions and other violent events in our galaxy, have the potential to alter the climate of Earth. So against this particular threat, the frequent and regular flips of the sun's magnetic field are a good thing for us who dwell on the earth.

Solar flares are a different matter. They too are most likely to occur during Solar Maximum, just as the sun's magnetic poles are shifting. F. Michael Maloof, writing for *World Net Daily*, describes the danger: "Solar flares create an electromagnetic pulse, or EMP, effect that can wipe out electrical grids and communications systems and fry electronics. Some of these solar flares can be more than 20 times the size of the Earth. A direct hit from the EMP from a solar flare not only would knock out all unprotected electronics but could subject 90 percent of world's population to starvation and death, particularly in urban areas. This is due to the fact that all critical infrastructures on which a technological society such as the United States depends would fail in a cascading effect once the grid is knocked out. These critical infrastructures include telecommunications, financial and banking systems, food and water delivery, emergency services and petroleum deliveries, among others. No cash registers would work, no fuel pumps, no trucks to deliver food, no networks like phone, power and water systems—in essence, a return to an agrarian society."

In another article, Maloof writes, "Scientists around the globe are joining those in the United States in becoming alarmed at the possibility of a plasma cloud from a solar superstorm that could wipe out vast electronics networks, because they say Earth would have only a notice of about 15 minutes." The only reason we would have any warning time at all is that solar flares, being composed of plasma, travel somewhat more slowly than the speed of light. We can (theoretically) see solar flares coming. It's like seeing the muzzle flash of a distant rifle shot before one hears the sound. While fifteen minutes is precious little time to shut down critical electronic infrastructure on the ground to avert the damage that might be caused by a flare's EMP, the most vulnerable equipment is aloft in space—weather and communication satellites—where there is no atmosphere to soften the blow.

Even if electrical grids on the surface were to escape destruction from a major solar flare, our communications and military capabilities could be crippled. Maloof explains: "Also affected by solar activities and storms are search and rescue and early warning systems such as over-the-horizon radars whose signals bounce off the ionosphere to monitor the launch of aircraft and missiles from long distances. During geomagnetic storms, radio clutter greatly affects these systems, something which can be particularly critical in a war zone. Geomagnetic storms also affect navigation systems where accuracy is essential. According to NOAA [the National Oceanic and Atmospheric Administration], accuracy of navigation systems using very low frequency signals depends on knowing the altitude of the ionosphere's lower boundary. Aircraft and ships use these very low frequencies to determine their positions. During solar events and geomagnetic storms, the altitude of the ionosphere's lower boundary can change rapidly, thus introducing errors of up to several kilometers. If alerted in time to a geomagnetic storm, navigators can switch to alternative or backup navigation systems.

"Space weather forecasting, then, becomes increasingly important to determine what anomalies may affect the satellites and their functioning. As a result, the knowledge of space weather will be very important in helping to determine any repositioning and controlling of the satellite that needs to take place. Space weather forecasting becomes more important for scientific satellites whose instruments are far more sensitive to space environment than communications satellites. For that reason, such sensitive instruments on a scientific satellite need to be placed in a safe mode when adverse space weather conditions are projected. To warn of potential damaging storms, NOAA is using an advanced solar storm detector called the Solar X-Ray Imager, or SXI. It provides space weather forecasters with real-time images of the sun's explosive atmosphere. In turn, this helps scientists to issue timely warnings in an effort to offset tens of billions of dollars in potentially harmful effects on assets in space and on the ground."

None of this mattered much fifty years ago. But in recent years, we humans have spent ourselves into the poorhouse, first creating a cultural environment that is totally dependent on electronics, and then (having realized how vulnerable we'd made ourselves to solar flares and EMPs in the process) building expensive but pitifully inadequate defense mechanisms to protect the new electronic "gods" we'd made. Protect them from *what*? From something Yahweh built eons ago to protect *us* from cosmic rays generated in supernovae halfway across the galaxy. The magnetic solar cycle was our friend and protector until we "learned" to disrespect the God who built it.

The funny thing is, the same God who ordained the solar cycles that "threaten" our electronic-dependent way of life is perfectly willing to put the whole thing on "hold" if it suits His purpose. As if to purposely humiliate "climate scientists" whose only metric has been tax-worthy anthropogenic CO<sub>2</sub> in the atmosphere (which tends to make the average global temperature rise), Solar Cycle 24 has proven quite unpredictable so far, demonstrating, if nothing else, that there is more to "climate change" than what you can tax into submission with "carbon credits." Ever since the last solar maximum in 2001, these scientists have been breathlessly warning us that the arctic ice cap would completely melt by 2013. What *actually* happened was that it *added* a million square miles of ice. In a delicious bit of irony, a research vessel dispatched to Antarctica to study the effects of global warming got itself engulfed in the quickly advancing ice. And then, the icebreaker sent to set it free got stuck as well. Why? Either we didn't burn enough coal, or it was all because of an unusually quiet sun. Just when (according to the normal eleven-year cycle) solar activity was expected to be picking up steam, sunspot activity was extremely low throughout 2009-there were 260 days during the year with no sunspots at all. So astronomers shifted their prediction of peak solar activity from 2012 to 2013, and as it turned out, the sun's magnetic poles didn't flip until the very end of that year.

Cycle #24 is already among the weakest ever reported—the most anemic in the past century. If the trend were to continue, the Earth might experience another Little Ice Age, such as the cold period we experienced between about 1500 and 1850 AD. *Wikipedia* (still fixated on CO<sub>2</sub> emissions) notes that "There is still a very poor understanding of the correlation between low sunspot activity and cooling temperatures. During the period 1645–1715, in the middle of the Little Ice Age, there was a period of low solar activity known as the Maunder Minimum. The Spörer Minimum has also been identified with a significant cooling period between 1460 and 1550." Of course, the whole cool period experienced an unusual level of volcanic activity as well—ash clouds to block the sun's warmth offset by high natural CO<sub>2</sub> emissions to heat things up. There are enough variables in play that one can choose whatever potential environmental culprit suits his fancy and ignore the rest—it's plausible deniability on a grand scale.

But that's a universal truth, isn't it? Men are creatures endowed with free will: we get to *choose* who and what to believe. We can choose to perceive that it's all coming together just as Yahweh said it would, or we can choose to believe that life on earth is all just a big cosmic joke—with humanity as the punch line. So depending upon who you listen to, the earth is warming up—or it's cooling down. Climate change is caused by people releasing carbon into the air—or by magnetic disturbances on the surface of the sun. Man will continue to evolve until he is the glorious master of the universe—or the human genome will continue to degenerate until our species is no longer viable. And God? God doesn't exist: he's merely a figment of the human imagination—*or* He created the universe and everything in it, placed man upon the earth to exercise free will, told us exactly what He was doing, and then stepped back to let His plan unfold, in His way, according to His foreknowledge, and on His schedule.

I think you know by now how I feel on these issues. But my opinions mean nothing: the evidence is everything. Since our primary job in life is to choose, I would hope that our choices are based on the evidence (note that I didn't say *proof*) that God has left for us. For chapter after chapter now, I have been examining evidence from the secular realm that tends to confirm an amazing—yet universally overlooked—discovery from God's word: that He told us, to the very day, when He would return to rule His people in peace and righteousness for a thousand years. If Christ's Millennial kingdom is (as I believe) the ultimate expression of Yahweh's incessantly repeated Sabbath principle, then it must follow six other thousand-year periods of time, a series put in motion by the very first poor choice—Adam's sin. And if all seven of Yahweh's "holy convocations" are meant to be prophetic of highlights in Yahweh's plan for our redemption (as the first four turned out to be) then the last of them—the Feast of Tabernacles predicts the very day when God—as the reigning Messiah—will come to "camp out" with men. The Torah tells us the very day: Tishri 15. In the Gregorian year 2033 (the bi-millennial year of the Passion of Christ), that works out to a Sabbath (naturally), October 8.

The secular evidence, of course, isn't nearly that precise, but in instance after instance, we've seen evidence that leads us to expect a paradigm shift of "Biblical proportions" by the fourth decade of the twenty-first century—just when (according to my scriptural epiphany) the Messiah's kingdom is due. But in the case of our present subject of inquiry, "solar issues," we have seen no such

indicator, no build up to a great solar cataclysm on the horizon, no evidence that points toward a particular time frame. So why did I even bring it up?

It's because of one ominous prophecy recorded in the Book of Revelation. "Then the fourth angel poured out his bowl on the sun, and power was given to him to scorch men with fire. And men were scorched with great heat, and they blasphemed the name of God who has power over these plagues; and they did not repent and give Him glory." (Revelation 16:8-9) Most of the classic Bible commentaries, loath to give Yahweh credit for being able to balance cosmic forces on a razor's edge when it suits His purpose, insist that this can't be literal. For example, Gill's Exposition (which is usually pretty good) devolves into total gobbledygook: "Not literally; and so designs not a violent heat, which shall go before, and be a preparation for the burning of the world; nor any sore famine arising from it, which would be common to all, good and bad; but mystically: some understand this of Christ, the sun of righteousness, not of any wrath that shall be poured forth on him again, being now justified in the Spirit; but either of that clear shining of Christ in the ministry of the word, in those times this vial refers to; when Zion's light will be come, and the light of the sun will be seven fold, and Christ alone will be exalted...." And he rambles on practically forever without taking a breath, grasping at unrelated straws and drawing unwarranted conclusions. Mystically? Not a chance.

Now that we know what solar flares are, and how they're generated, seeing a literal fulfillment to the fourth bowl judgment is no stretch at all. Yes, it's true that the biggest flares our sun ordinarily generates fall short of the effect described here. But the difference is one of degree, not of kind. If I may, I'd like to reprise a passage from Chapter 23, "Days of Wrath," explaining the possibilities latent in the physics of our sun—just as John described them:

"Normally, the biggest of our sun's geomagnetic events are called "X-class" flares. Our atmosphere (including the ozone layer) is ordinarily quite effective in defending the earth's surface against their effects. (Thank You, Yahweh.) And as far as scientists can tell, there has never been a flare intense enough to cause the kind of heat spoken of in the fourth bowl judgment of Revelation. Not on the sun, anyway.

"Distant stars are another matter. 'Superflares' have been observed for years emanating from young stars, fast-rotating stars, or twin stars—places where the magnetic fields are presumed to be totally haywire. But in 1999, a team of Yale University researchers announced that they had observed superflares—anywhere from a hundred to ten million times as powerful as ordinary X-class solar flares coming from nine stars described by astronomer Bradley E. Schaefer as 'disturbingly similar to our own sun.' [The data were published in a peerreviewed article by Bradley E. Schaefer and Eric P. Rubenstein in *The*  *Astrophysical Journal* of The American Astronomical Society 529:1031-1033, February 1, 2000.] He was quick to point out, of course, that we are in no immediate danger, saying 'Our sun does not do this, as far as we can tell.' These superflares are theoretically triggered by interaction between the stars' magnetic fields and those of nearby gas-giant planets like Saturn or Jupiter—which in the case of our solar system are far too distant from the sun to have the requisite magnetic influence.

"Schaefer, however, did speculate on what would happen if such a superflare were to occur here. A powerful one could create 'a complete global ozone hole that would last a couple of years.' And we know what that would do, don't we? Such a superflare, he said, 'could turn a cold winter day into a hot summer day.' Does this sound familiar to anybody but me? It's a perfect description of the effects of the fourth bowl judgment.

"It would take a miracle, of course, for the magnetic forces on the sun's surface to build in just the right way and let go at just the right moment to cause such a phenomenon. I've got no problem with that. To my mind, the far greater miracle would be the sort of thing Yahweh did a thousand times over when He created this earth for us to live on: achieving perfect balance. The superflare would have to be strong enough to get men's attention (an ordinary X-class flare wouldn't even be noticed after a nuclear war) but weak enough to avoid turning planet Earth into a charcoal briquette. God's not done with the world yet. People are still going to have to live here after bowl number four. Belief here is a package deal: either Yahweh is the Creator of the whole universe and thus capable of controlling such things, or He isn't."

I might add that this can be expected to take place during the second half of the Tribulation—if my timeline hypothesis is correct, my educated guess would be early in 2032. That would put it at least two or three years *before* the ordinary Solar Maximum. In other words, the fourth bowl judgment isn't just a coincidence, or bad luck, or even the result of having had the Earth's ozone shield torn to shreds by a nuclear war (which will take place in 2028-29). It is, rather, an example of the focused, directed, and precisely gauged wrath of God, administered by a chosen spirit messenger (i.e., an angel) in response to humanity's rebellion. Just because God will probably use a solar flare to accomplish His will, there is nothing "natural" about this.

To keep things in perspective, note that it could be worse: a special, far more "focused" type of cosmic event is the Gamma Ray Burst, or GRB. *Wikipedia*: "Gamma-ray bursts (GRBs) are flashes of gamma rays associated with extremely energetic explosions that have been observed in distant galaxies. They are the brightest electromagnetic events known to occur in the universe. Bursts can last from ten milliseconds to several minutes. The initial burst is usually followed by a

longer-lived 'afterglow' emitted at longer wavelengths (X-ray, ultraviolet, optical, infrared, microwave and radio). Most observed GRBs are believed to consist of a narrow beam of intense radiation released during a supernova or hypernova as a rapidly rotating, high-mass star collapses to form a neutron star, quark star, or black hole....

"The sources of most GRBs are billions of light years away from Earth, implying that the explosions are both extremely energetic (a typical burst releases as much energy in a few seconds as the Sun will in its entire 10-billion-year lifetime) and extremely rare (a few per galaxy per million years). All observed GRBs have originated *outside* the Milky Way galaxy.... It has been hypothesized that a gamma-ray burst *in* the Milky Way, pointing directly towards the Earth, could cause a mass extinction event.... Measuring the exact rate is difficult, but for a galaxy of approximately the same size as the Milky Way, the expected rate is about one burst every 100,000 to 1,000,000 years...." Our science satellites detect about one gamma-ray burst per day on average.

"Gamma-ray bursts are thought to emerge mainly from the poles of a collapsing star. This creates two oppositely-shining beams of radiation shaped like narrow cones. Planets not lying within these cones would be comparatively safe." Unlike ordinary cosmic rays, Gamma-ray bursts are not dissipated by magnetic forces along their paths. This is a good news-bad news scenario, however. Because all of the immense energy is emitted in two narrowly focused beams discharged in opposite directions as the star implodes, only a "direct hit" would be deadly, and the chances of that happening are vanishingly remote. But the energy is so concentrated, there is really no defense against such a cosmic "bullet."

My point is that the universe as God made it is an intrinsically dangerous place. Any number of cosmic threats are capable of wiping out life on earth. These "threats," however, are a function of the processes God put into place to make the very building blocks of our existence. Gamma ray bursts, for example, are the result of the same events—the collapse of stars—in which heavy elements are created, without which we "carbon-based life forms" wouldn't even exist. Yahweh's design for our universe, galaxy, solar system, and planet demonstrate His interest in creating and preserving an environment suitable for the type of life we enjoy—the sort of life we share with all mortal creatures. So although we read in God's Word of a solar "bowl judgment" event so extreme and unprecedented that it compels men to blaspheme the Creator they swear doesn't even *exist*, we may know for certain that Yahweh has everything under control, balanced (as always) on a razor's edge, neither so strong it will destroy the world, nor so weak it might go unnoticed. As usual, *the heavens declare the glory of God*.

### The Earth's Diminishing Magnetic Field

We've seen how the sun's magnetic field reverses itself rather regularly about once every eleven years—and in the process sends out a sheet of electrical current that (among other things) shields Earth against cosmic ray bombardments. Earth has its own magnetic field, one that has also been known in the past to reverse poles. But since our planet is made of something a wee bit less pliable than the sun's plasma and hot gasses, the process takes a little longer—hundreds of thousands of years. That is, it has never happened while humans have walked the earth. But *life* has weathered the storm quite nicely, as far as we can tell perhaps hundreds of times.

The Earth's magnetic field is addressed in a *National Geographic* article (referenced above, quoting Phil Scherrer of Stanford University) "The sun isn't the only body in the solar system with a magnetic field that reverses. Earth has a magnetic field as well, and it has flipped many times over the last billion years. This isn't surprising, Scherrer said, because the magnetic fields of both the sun and the Earth are thought to be generated by similar 'dynamo' processes that involve rotating and convecting electrically conducting fluids—molten iron in the case of the Earth and hot, ionized gases for the sun. The difference, however, is that Earth's magnetic field reversals happen much less frequently—only once every 200,000 to 300,000 years on average, although the actual time can vary widely—and over much longer timescales.

"An analysis of centuries-old ship logs performed in 2006, for example, found that the Earth's magnetic field weakens in staggered steps, and that its strength has declined by a few percentage points since 1840. If this decline is continuous, scientists predict the Earth's magnetic field could reverse sometime in the next 2,000 years. When it does happen, Scherrer thinks that the flip will happen gradually—as is the case with the sun—and won't be marked by any kind of calamitous drop of the Earth's magnetic field strength to zero. 'It won't just disappear and come back again,' Scherrer said."

The earth's magnetic field is there for a reason. By God's design, it deflects (just like the sun's current sheet) cosmic rays and solar emanations that could, under certain circumstances, prove deleterious to the earth's ability to foster life. *Wikipedia* states, "The magnetic field of the Earth deflects most of the solar wind. [If the magnetic field were to disappear] the charged particles in the solar wind would strip away the ozone layer, which protects the Earth from harmful ultraviolet rays. One stripping mechanism is for gas to be caught in bubbles of magnetic field, which are ripped off by solar winds. Calculations of the loss of carbon dioxide from the atmosphere of Mars, resulting from scavenging of ions by the solar wind, indicate that the dissipation of the magnetic field of Mars caused a near-total loss of its atmosphere." But hey, with no CO<sub>2</sub>, at least there's

no "global warming" on Mars. Seriously though, the implication is that the same thing could (conceivably) happen on Earth.

Cosmic rays are a threat that originates outside our solar system. NASA explains: "Galactic cosmic rays (GCRs) are the high-energy particles that flow into our solar system from far away in the Galaxy. GCRs are mostly pieces of atoms: protons, electrons, and atomic nuclei which have had all of the surrounding electrons stripped during their high-speed (almost the speed of light) passage through the Galaxy. Cosmic rays provide one of our few direct samples of matter from outside the solar system. The magnetic fields of the Galaxy, the solar system, and the Earth have scrambled the flight paths of these particles so much that we can no longer point back to their sources in the Galaxy. If you made a map of the sky with cosmic ray intensities, it would be completely uniform. So we have to determine where cosmic rays come from by indirect means."

Michael Schirber, writing for *Astrobiology* Magazine (and quoted by *NBC News*) opines, "Some of the mass extinctions identified in the fossil record can be linked to an asteroid impact or increased volcanism, but many of the causes of those ancient die-offs are still open for debate. 'There may have been nearby astronomical goings-on that drastically increased the radiation on Earth,' says Brian Fields from the University of Illinois. A supernova going off 30 light-years away could cause a jump in radiation on our planet that could directly, or indirectly, wipe out huge numbers of species...." A supernova is the explosion of a star, caused by gravitational collapse, during which the star's luminosity increases by as much as 20 magnitudes and most of its mass is blown away at very high velocity. And several such mass extinctions are indicated in the fossil record of the Earth's history.

"Cosmic rays are mostly high-energy protons originating from supernova shock waves. We can't precisely trace where a cosmic ray came from because its trajectory is bent by magnetic fields. In fact, a typical cosmic ray will bounce inside the galaxy's magnetic field for millions of years before eventually colliding with something—like Earth. 'Every square centimeter on the top of the Earth's atmosphere is hit by several cosmic rays per second,' Fields says. 'This is forever going on.' None of these 'primary' cosmic rays ever reach us on the ground. Instead, they collide with atoms in the upper atmosphere, creating a shower of lower energy 'secondary' particles. At sea level, the majority of cosmic ray secondaries are highly penetrating muons. About 10,000 muons pass through our bodies every minute. Some of these muons will ionize molecules as they go through our flesh, occasionally leading to genetic mutations that may be harmful. At present, the average human receives the equivalent of about 10 chest X-rays per year from cosmic rays. We shouldn't be alarmed by this, since it is just part of the natural background radiation under which humans and our ancestors have been exposed to for eons."

Evolutionists happily point toward these cosmic ray bombardments as the cause of the mutations that alter our genetic makeup, giving nature something to "select," and conspiring to make the human race ever more "fit" as the eons pass. But as we discovered in the "Genetic Entropy" section of our previous chapter, the human genome (and that of the rest of biosphere) is *not* becoming "more fit." It's actually *degrading*, becoming less and less capable of thriving, or even surviving. Cosmic rays explain (partially) why our world is losing species by the hundreds to the ravages of extinction, while we're seeing no new kinds flora or fauna appear to replace them. Evolutionary theory doesn't explain what we see in the real world: quite the opposite, in fact.

So cosmic rays and the solar wind are ever-present threats, but are by nature mitigated by our planet's magnetic field. One of the critical factors of our atmosphere's physical makeup is the high altitude ozone layer that shields us from ultraviolet rays. Our magnetic field is also largely responsible for preventing damage to the ozone layer from cosmic ray and solar wind bombardment. (Damage from chlorofluorocarbons, not so much.) What, then would we expect to see if the earth's magnetic field were to weaken?

It's not an academic question. That very thing appears to be happening. Writing for *National Geographic News* (September 9, 2004), John Roach discusses the issue: "Earth's magnetic field is fading. Today it is about 10 percent weaker than it was when German mathematician Carl Friedrich Gauss started keeping tabs on it in 1845, scientists say. If the trend continues, the field may collapse altogether and then reverse. Compasses would point south instead of north...." It's a very slow process, of course—nothing at all like we witness every eleven years or so on the sun. But the earth's magnetic poles do tend to wander: currently, they're about ten degrees off of the rotational axis of the earth. So "north" and "magnetic north" are actually two slightly different things.

"The field has reversed many times in the past, and life didn't stop,' said Gary Glatzmaier, an earth scientist and magnetic field expert at the University of California, Santa Cruz. Glatzmaier is keeping an eye on our planet's weakening magnetic field as he tries to learn more about how Earth's geodynamo works. The geodynamo is the mechanism that creates our planet's magnetic field, maintains it, and causes it to reverse. Earth's geodynamo creates a magnetic field that shields most of the habited parts of our planet from charged particles that come mostly from the sun. The field deflects the speeding particles toward Earth's Poles. Without our planet's magnetic field, Earth would be subjected to more cosmic radiation than it is. The increase could knock out power grids, scramble the communications systems on spacecraft, temporarily widen atmospheric ozone holes, and generate more aurora activity."

The effects of a weakening magnetic field, then, wouldn't exactly be life threatening, but they could prove to be expensive and inconvenient, not to mention providing a literal fulfillment of Yahshua's prophecy in Luke's recounting of the Olivet Discourse: **"For the powers of the heavens shall be shaken."** (Luke 21:26) Roach continues: "A number of Earth's creatures, including some birds, turtles, and bees, rely on Earth's magnetic field to navigate. The field is in constant flux, scientists say. But even without it, life on Earth will continue.

"There are small fluctuations, which lead to nothing, and large ones, which we know from the geologic record are associated with reversals,' said Peter Olson, a geophysicist at Johns Hopkins University in Baltimore, Maryland." How do paleogeologists know what has happened to our magnetic field in the past? "When molten lava erupts onto the Earth's crust and hardens, it preserves a snapshot of Earth's polarity, much in the way that iron filings on a piece of cardboard align themselves to the field of a magnet held beneath it. According to Earth's geologic record, our planet's magnetic field flips, on average, about once every 200,000 years. The time between reversals varies widely, however. The last time Earth's magnetic field flipped was about 780,000 years ago."

It would appear, then, that we're overdue. But as I said, this sort of thing doesn't happen over a weekend. It proceeds with glacial deliberation: "We hear that the magnetic field today looks like it is decreasing and might reverse. What we don't usually hear is it that is on a time scale of thousands of years,' Glatzmaier said. 'It's nothing we'll experience in our lifetime.' But several generations from now, humans just may witness a reversal. By then, Glatzmaier said, scientists will better understand the process and be prepared to cope with the effects." That's an assumption you just can't make, of course. The problem is, our dependence on electronics is growing even faster than our ability to understand the world around us. Merely knowing what is likely to happen is no indicator that anything practical could (or will) be done to protect the earth's inhabitants from what's coming. Politics, economics, ignorance, arrogance, and naïveté inevitably get in the way. I'll offer the parallel case of the rape of the rain forests (the source of fully *half* of the world's anthropomorphic CO<sub>2</sub> emissions), and rest my case. (For that matter, I'm several hundred pages deep into an exposé of the very timeline of God, and I don't really expect more than half a dozen people to change the courses of their lives based on the information I'm presenting. People believe what they want to believe, and do what they choose to do.)

Our magnetic field is a natural result of the way Earth is constructed: "Scientists believe the magnetic field is generated deep inside the Earth where the heat of the planet's solid inner core churns a liquid outer core of iron and nickel. The solid inner core is thought to be a mass of iron about the size of the moon that is heated to several thousand degrees Fahrenheit. Heat radiated by this inner core builds up at its boundary with Earth's liquid outer core, causing the fluid there to expand. 'When it expands it becomes a little less dense [and more] buoyant. So it starts to rise. That's convection,' Glatzmaier said. 'Hot fluid rises, then cools off and sinks again.' The convection generates an electric current and, as a result, a magnetic field. Additional currents are created as Earth cools. Some of the molten iron solidifies onto the inner core, releasing lighter material in the process. The rotation of the Earth also generates forces that curve the flow of fluid as it rises, twisting the magnetic field.

"All of these currents constantly replenish the magnetic field, a maintenance process that prevents it from decaying. Typically each newly generated field lines up in the direction of the existing magnetic field. But every now and again, some force will cause the new field to line up in the opposite direction. This process can lead to a net weakening of Earth's magnetic field. Over time a new field can continue to grow. This further weakens the original magnetic field. If the process continues, the two fields would eventually cancel each other out. Earth's magnetic field would collapse and then, maybe, flip. 'But more likely than not, what will happen is the original [field] will get stronger again and overwhelm the instability,' Glatzmaier said."

"What If Earth's Magnetic Poles Flip?" That's the title of an article by Natalie Wolchover published in *LiveScience.com* (February 10, 2012). She explains the ramifications of a pole reversal, as unlikely as such a thing is in the short term: "The geologic record shows that hundreds of pole reversals have occurred throughout Earth's history; they happen when patches of iron atoms in Earth's liquid outer core become reverse-aligned, like tiny magnets oriented in the opposite direction from those around them. When the reversed patches grow to the point that they dominate the rest of the core, Earth's overall magnetic field flips. The last reversal happened 780,000 years ago during the Stone Age, and indeed, there's evidence to suggest the planet may be in the early stages of a pole reversal right now....

"Earth's magnetic field takes between 1,000 and 10,000 years to reverse, and in the process, it greatly diminishes before it re-aligns. 'It's not a sudden flip, but a slow process, during which the field strength becomes weak, very probably the field becomes more complex and might show more than two poles for a while, and then builds up in strength and [aligns] in the opposite direction,' said Monika Korte, the scientific director of the Niemegk Geomagnetic Observatory at GFZ Potsdam in Germany.

"The scientists say it's the weak in-between phase that would be roughest on Earthlings. According to John Tarduno, professor of geophysics at the University of Rochester, a strong magnetic field helps protect Earth from blasts of radiation from the sun. 'Coronal mass ejections (CMEs) occasionally occur on the Sun, and sometimes hurtle directly toward Earth,' Tarduno said. 'Some of the particles associated with CMEs can be blocked by Earth's magnetic field. With a weak field, this shielding is less efficient.' The charged particles bombarding Earth's atmosphere during solar storms would punch holes in Earth's atmosphere, and this could hurt humans. 'Ozone holes, like that over Antarctica (which today are due to an entirely different cause, related to man) could form as solar particles interact with the atmosphere in a cascade of chemical reactions. These holes would not be permanent, but might be present on one- to 10-year timescales. They are arguably important enough to be a concern in terms of skin cancer rates,' Tarduno said...."

"Our technology would definitely be in danger. Even now, solar storms can damage satellites, cause power outages and interrupt radio communications. These kinds of negative influences clearly will increase if the magnetic field and thus its shielding function became significantly weaker. One additional worry is that a weakening and eventual reversal in the field would disorient all those species that rely on geomagnetism for navigation, including bees, salmon, turtles, whales, bacteria and pigeons. There is no scientific consensus on how those creatures would cope...." On the other hand, let's just hope they haven't all gone extinct by the time the poles flip.

"The geomagnetic field is currently weakening, possibly because of a growing patch of reverse-alignment in the liquid core deep beneath Brazil and the South Atlantic. According to Tarduno, the strength of Earth's magnetic field 'has been decreasing for at least 160 years at an alarming rate, leading some to speculate that we are heading toward a reversal.""

So what's the bottom line here? For the first time since man walked the earth, two things are happening at roughly the same time: our planet's magnetic field is weakening, and our civilization is becoming increasingly reliant on the sort of technology that *depends upon* a strong magnetic field for protection. A study of the ten plagues of Egypt reveals that every single one of them was crafted by Yahweh to "dethrone" one false god or another—demonstrating to anybody with his eyes open that the God of the Hebrews was superior to any "deity" man could conjure up. And note that according to Yahweh, the top "god" of the Egyptian pantheon was *not* the "sun god," Ra. He was only the ninth deity to fall, the runner-up. The top "god" was *man himself*: the tenth plague took out the firstborn sons of Egypt, up to and including the house of Pharaoh. That is, the "god" of atheistic secular humanism has already fallen: mankind has proven himself utterly incapable of running his own affairs, improving his circumstances, or even being trusted.

So in whom does man place his faith nowadays? Some say they trust in Allah, or the Pope, or big, powerful governments, or wealth, or weapons, or science, or their own survival skills. But although hardly anybody would call it a "god" in the traditional, "religious" sense, most people today *rely upon* their electronics. Very few of us today can earn a living, communicate, learn, travel, procure or prepare food, get water, receive medical treatment or do much of anything else without the assistance of our electronics. Technology has not only revolutionized crime, it has also become an integral part of the worship experience—as I said, the technology itself is spiritually neutral.

I'll offer one anecdote to make my point. A pastor friend of mine uses his high-tech gadgets for *everything*. He leads worship from his iPad (using Airturn to "turn pages" on Onsong); he teaches from his iPad (with Goodreader), and uses his cell phone to control Pro-Presenter over a wifi link to project Bible passage "slides" so the congregation can follow along. On a recent Sunday morning, his iPad suddenly went blank—totally unresponsive. He was in a real pickle. In a mad scramble, he had to *print out* (*gasp!*) all of his chord charts and sermon notes. I'm not saying he's *wrong* to employ electronic gadgetry to advance the cause of Christ. God knows I would be dead in the water if I had to write my books out *longhand* like Charles Dickens or Herman Melville. But such incidents should remind us, loud and clear, that *how we do things* is (or should be) not remotely as important as *what we do*.

In the meantime, as the church age draws to a close and the Millennial Kingdom of Christ appears on the horizon, our God is allowing the Earth's magnetic field to slip, to weaken, to lose a bit of its ability to protect the electronic-dependence trap into which so many of us have fallen—whether or not we even realize what has happened. Our technology may make life easier; but our God, Yahweh, makes life *possible*. Let's not confuse the two things.

# Appendix 8 Secular Chronology Confirmation

How current trends corroborate the Bible's revealed timeline

## GEOPOLITICS

There's a decades-old running joke in my family: "I make all the big decisions, and my wife decides all the small stuff." That is, I (being the man of the house) get to decide who God is, what nationality we are, what language we're going to speak, what form of government we're going to have, and whether or not we'll go to war with somebody. She (being my submissive spouse) determines what house we're going to live in, what we're going to eat, where I'm going to work, what kind of car we're going to drive, and how many kids we're going to have—you know, the *little* decisions of life.

The other running gag we share is that when we're about to buy something (like, say, *lunch*) one of us invariably asks, "Is this coming out of your money or mine?" The point (of both stories) is that after forty-six years of marriage, we are not two people; we are one couple. There is no way to distinguish her "assets" or agenda from mine. We are not a partnership; we're a corporation. We have no separate goals; what's good for the goose is also good for the gander. When she hurts, I feel her pain; and when I rejoice, she's happy for me. There is no "yours" or "mine." There is only "ours."

Looking at Yahweh's instructions for Israel, I get the distinct impression that that's how He wanted life to function here on the earth—and not just for the Jews (a symbolic microcosm of humanity, God's "test market," if you will), but all of us. His agenda was to be our goal; He and the human race were (ideally) to be "going the same direction," interested in achieving the same things, totally in sync with each other. We were to be holy, as He is holy; we were to be the tangible expression of His nature in the world—love.

Don't look now, but that ideal isn't exactly what we see around us. Rather, we see nations, parties, and individuals at enmity with each other, in competition for what they see as finite resources, whether wealth, land, food, or the souls of men. There is tension between allies, and animosity with everybody else. The common driving motivations throughout much of the world are fear, greed, mistrust, hatred, and envy—the antithesis of love. Even when our stated goals are ostensibly altruistic (the elimination of poverty and disease, for example) our proposed means of attaining those lofty ideals often put us at each other's throats

(not to mention the fact that behind the scenes, events are often manipulated by people with entirely different motives).

Ironically, people tend to project their own failings, flaws, and fears onto those with whom they disagree. Racism, for example, is a charge invariably leveled by those with a strong racial bias themselves—while remaining blind to their own prejudiced proclivities. If someone accuses you of being greedy, it's most often because they're looking for ways of "redistributing your wealth" into their own pockets. People who scream loudest about sexual immorality in others are more often than not struggling with perversions of their own. I'm not saying that one person's accusations against another are necessarily untrue; I'm only suggesting that when you point the finger of blame at others, you've got three fingers pointing back at yourself.

That is why Yahshua instructed us to "Judge not, that you be not judged. For with what judgment you judge, you will be judged; and with the measure you use, it will be measured back to you. And why do you look at the speck in your brother's eye, but do not consider the plank in your own eye?" (Matthew 7:1-3) At this juncture, however, we need to draw a very important distinction. While we are not to condemn others because of their sins (because we have all sinned before God), we are not to turn a blind eye toward sin itself—pretending that it's not really "wrong." We are not to excuse or downplay greed (for example), just because it's a common human foible. It's still sin: it betrays a lack of trust in Yahweh's provision, and leads to an unwillingness to show practical mercy to our fellow human beings. Unless we've given *everything* away in order to provide for those less fortunate (see Mark 10:21), any one of us can still legitimately be labeled "greedy" in God's eyes.

Another "hot-button" issue these days is homosexuality. A sure-fire way for anyone with any "celebrity status" to draw the irrational ire of the media is to point out the obvious and undeniable truth that the God of the Bible says that homosexuality is wrong; it's a *sin*. (See Leviticus 18:22. Actually, sin is a simple missing of the target of perfection, but God calls homosexuality an "abomination" which, to put things in perspective, is the strongest language in the Bible.) Anyone who says this these days is characterized as being intolerant, someone who "hates gays." But that's an extrapolation you can't logically make. It is *not* hate—in fact, it can be seen as an act of "tough love"—to point out that something somebody is doing is bad for him (by God's definition). The charge of "homophobia" that could be leveled against me is misplaced: I'm not afraid of gays—I fear *for* them. Warnings are *not* expressions of hatred. That's why we instruct our children not to run with sharp pointy scissors, touch hot oven doors, or chase balls out into the street. So I would counsel y'all not to engage in homosexual activity (*Gasp!*). I would *also* counsel you not to swim in sharkinfested waters, bleeding from an open wound, while slathered with bacon grease. I don't say this because of my galeophobia (fear of sharks), or even the revulsion I'd experience seeing you getting eaten by one of them. It's just that because I love you, I would prefer that you "live long and prosper" (as the saying goes). I'm merely concerned for your safety and well-being.

So when two people disagree about whether some behavior is right or wrong, a fundamental truth is being demonstrated: they are *not gauging behavior by the same standard*. They're not going in the same direction, pursuing the same agenda, or operating as one. At its most basic level, this dichotomy is (or can be) between God's law and man's. This line of thought opens a whole new can of worms these days, however, because man no longer even agrees on who (or what) "God" is. Is He Yahweh, the God of the Bible? It he the Muslims' Allah, or one of a million Hindu gods like Shiva or Vishnu? Is "He" some sort of nebulous and distant energy force or state of being with no personality and no opinion? Does He even exist? Atheistic secular humanists would insist that He does not—that blind chance is the only "deity." That being said, our theories about God's identity have no real bearing on reality: even if all of us were in complete agreement, it would not, in and of itself, prove anything to be true. Our opinions have absolutely nothing to do with what actually is.

But if our Creator-God is *not* Yahweh, we've got a huge problem, for He is the only God who even *purports* to have delivered a code of law to men—a compendium of instructions—moral guidelines and rules to live by. It's called the Torah, a.k.a. "the Law of Moses" (after the prophet who delivered it). Granted, eighty or ninety percent of the Torah is purely symbolic—"Levitical" stuff designed to point us toward the identity and mission of Yahweh's Messiah—but even the "practical bits" (which invariably have a symbolic component as well) are said to be the very word of God. The only other "religious document" in existence that people claim to have been written by God himself is the Qur'an of Islam. But the Qur'an is not a code of law in any sense of the word. Islamic law (or "Sharia") must be gleaned piecemeal from the Hadith and the Sunnah, books written *not* about Allah or his agenda at all, but rather about what Islam's sole "prophet," Muhammad, said and did.

Our choices, then, are between aligning ourselves with the God who gave us the Torah, or following some other standard—which *by definition* must have been conceived by the mind of man. The man-made standard, though, is by its very nature practically guaranteed to be conflicted and contradictory (and, need I add, *inferior*), for every human ever born has exercised the privilege of free will, and we don't all choose the same thing. The God of the Torah, of course, gave us some cogent advice about which of these paths to take: **"There is a way that seems right to a man, but its end is the way of death."** (Proverbs 16:25) Moses himself said, **"I**  call heaven and earth as witnesses today against you, that [by delivering Yahweh's Instructions] I have set before you life and death, blessing and cursing. Therefore choose life, that both you and your descendants may live; that you may love Yahweh your God, that you may obey His voice, and that you may cling to Him, for He is your life and the length of your days." (Deuteronomy 30:19-20) Because men who are following no standard other than their own whims disagree most of the time, it's not terribly hard to see where the conflicts and animosity come from. And it's not hard to see why people don't see eye to eye on the sorts of things I used as examples above: racism, immorality, greed, and homosexuality—among hundreds of issues that could have been raised. If we were all following the *same* standard—Yahweh's Instructions—there would be no disagreement, strife, or discord in the world.

Because we've been "burned" so often by those who rule over us, it might seem logical to assume that the more repressive and restrictive of the two competing "standards" would be Yahweh's. After all, God is the One with all the authority, confidence, and power, while man's plan is barely coherent, and is promulgated by venal and vulnerable mortal creatures. But how it works in the real world is precisely the opposite of what we'd expect. Of the two standards, human wisdom is the one that invariably proves to be oppressive, while God's precipitates harmony and liberty. Why? Because for all its "weight," God's plan is absurdly simple: there are really only two "rules"—love God and love your fellow man. Everything else is a natural outgrowth of these two things.

Man's rules, by contrast, have no central overarching purpose, except perhaps to "make society run smoothly." They are instituted by, and are maintained for the benefit of, those in power—even if they are ostensibly instituted to bring about "good things." How did these people attain their power? It varies, but it's *never* because they "love God and love their fellow man." That strategy will provide inner peace, but it won't give you temporal authority over anybody. Man's agenda is therefore, by definition, at cross purposes with God's. At the very best, the plan of man is to force people to *act as if* they loved one another. But the desired result isn't love, exactly. It's love's inevitable byproducts—order, peace, prosperity, and security.

Fallen man looks at the world and says, we must have *order* in order to survive. Anarchy—the state of every man doing whatever he jolly well feels like—is considered by most sane people to be dangerous and unacceptable, even though it is the very essence of freedom. The book of Judges closes with this assessment: "In those days there was no king in Israel; everyone did what was right in his own eyes." (Judges 21:25) That's anarchy, and considering the larger context, this is *not* to be taken as a "good thing."

Four hundred years previously, Yahweh had bestowed upon Israel the perfect environment of liberty: they had the Torah to govern them, but they had no

human government to "enforce" it. God had seen to it that the priesthood He had instituted (and in the broader sense, the Levites) had no temporal power whatsoever-no police force, taxation mechanism, or permission to enact new laws. Local judges (Hebrew: *shaphat*—a governor, administrator, judge, or arbitrator) and magistrates (shoter—scribes) represented the congregation in deciding matters of individual guilt or innocence (see for example, Numbers 35:12, 24). And the people remained free and blessed as long as they followed Yahweh's clear Instructions—which included *selecting* wise and honorable judges and magistrates. When the people faltered (as they did from time to time), God raised up judges with special anointing in response to Israel's need and the nation's willingness to repent. But these judges (like Deborah, Samson, Gideon, or Samuel) represented no permanent form of human government. When the "judge" died, so did his or her influence, leaving behind only the Torah with which they had all started. It was no accident or oversight that Yahweh failed to "bless" Israel with a monarchy—and all the foolishness that would naturally accompany a standing human government.

Following the Torah's precepts was completely voluntary. That is, there was no police force compelling anybody to toe the line—which is *not* to say there wouldn't be negative natural consequences for failing to observe it, just as Moses had warned them. We saw above how he characterized adherence to the Torah's instructions as a matter of life and death; and in both Leviticus 26 and Deuteronomy 28 (that is, both before and after the wilderness wanderings), he had given Israel, in excruciatingly detailed terms, prophetic previews of both the blessings and cursings that awaited them, depending upon their adherence—or not—to Yahweh's principles. The Israelites of the age of the judges found themselves in trouble time after time, not because God's Law was onerous and restrictive, but because they abused and squandered the comprehensive freedom it gave them. They appreciated neither its value nor its Source.

Americans in recent decades have done roughly the same thing: we were blessed with Founding Fathers wise enough to give us a Constitution that limited the control our government could exert over us. As long as we heeded that Constitution—though it was a far cry from the Torah's perfection—we maintained a fair degree of personal autonomy. But to the degree that we allowed our elected "leaders" to reinterpret our venerable national blueprint, we have been enslaved by the very people we employed to run our country's affairs. The hired help have declared themselves our masters.

Still, we Americans like to think we have the world's best form of government (compromised though it has become in these Last Days). And perhaps it *is* the best system mankind could have devised. But comparing the governmental structure (or lack of it) instituted by Yahweh for the Israelites against that

invented by our Founding Fathers for America, we can begin to see more clearly the vast chasm that exists between doing things God's way and living by man's wisdom—between adhering to Yahweh's standard and following our own.

If the American "Pledge of Allegiance" can be given credence (and it admittedly agrees with the Torah in this respect) we can safely say that "liberty and justice for all" is the stated goal. (I'd *personally* read the pledge with a few slight changes: "I pledge allegiance to the God once worshiped in the United States of America, and give thanks to Him for the republic which He caused to stand: one nation under Yahweh, with liberty and justice for all.") With "liberty and justice" in mind, then, let us compare the American Constitutional system (arguably the best of human wisdom) with the Torah-based society of early Israel. Which one best delivers universal liberty and justice if it is allowed to work as it was designed?

The Constitution implants human government, and then—because humans are flawed—attempts to limit it by instituting checks and balances. The Torah imposes no government at all, placing "the congregation" (that's *everybody*) in charge of "law enforcement" where penalties are prescribed. The priests have no authority—they're "merely" there to remind everyone else of what God's Instructions command (and, of course, to serve as a prophetic metaphor for the intercessory role of the coming Messiah). Wise elders from the community (the *shaphat*—judges) were assigned to review evidence and testimony with an eye toward determining truth or falsehood, separating the guilty from the innocent. But they, like the priests, had no political power: they could only consult the Torah's precepts and judge accordingly, case by case. This is neither anarchy, nor democracy, nor monarchy, nor dictatorship. It's what you might call "arms-length theocracy"—God's precepts order society, but He isn't physically present (yet) to rule with a "scepter of iron." At the moment, free will and natural consequences are the rule: violate Yahweh's Instructions at your own peril.

The Constitution can be amended if the overwhelming majority of the people wish it to be—and it has been twenty-seven times, giving us things ranging from the abolition of slavery (#13) to the imposition of a whole new kind of slavery (#16—the Federal Income Tax). The Torah was perfect from its conception, never needing to be changed (which didn't prevent Jewish rabbis through the ages from encumbering it with thousands of their own definitions and rules—"interpretations" which, while ostensibly designed as a protective "hedge" about the law, in reality served only to obfuscate and complicate God's simple Instructions, making their purpose opaque, not to mention making them impossible to follow).

The Constitution provides the mechanism for creating new laws and regulations, in effect giving the government more and more power with every passing year. But the Torah's Author is God Almighty, whose power was absolute from eternity past, whose wisdom is perfect, and whose love is unconditional. His "law," then, needs no additions, updates, amendments, or reinterpretations. In fact, adding to it or taking away from it is expressly forbidden (see Deuteronomy 4:2, cf. Revelation 22:18-19).

The Constitution has fostered the creation of literally millions of new laws and regulations since its inception. Someone counted up the laws that went into effect on January 1, 2010 alone, and came up with 40,627 new regulations. A *Wall* Street Journal article once bemoaned the utter impossibility of counting all of the statues in the U.S. Criminal Code (which admittedly is but a small part of the total legislative burden). "There is no one in the United States over the age of 18 who cannot be indicted for some federal crime,' said John Baker, a retired Louisiana State University law professor who has also tried counting the number of new federal crimes created in recent years. 'That is not an exaggeration.'" One recent example of how out-of-control it has gotten: the so-called "Affordable Care Act" (popularly known as Obamacare) is 381,517 words long (roughly the length of the first 26 chapters of this book)—but the *regulations* written by non-elected bureaucrats to enforce and implement the law run (as of October, 2013) 11,588,500 words—*thirty times* as long as the law itself. And they're still not finished writing them! (Even worse, Mr. Obama has issued over a score of "executive orders" that illegally invalidate parts of his own signature legislationleaving turmoil and confusion in their wake.) The Torah, by comparison, is simplicity itself. Its individual precepts number in the hundreds-most of them "Levitical" (i.e., symbolic, as opposed to purely practical) in nature. (By the way, the vaunted "613" number is totally bogus, as I demonstrated in my Torah treatise, The Owner's Manual.) But as I said before, as a practical matter, it can be boiled down to only two "laws." Love God, and love your fellow man.

The Constitution provides for "justice" through a convoluted and multilayered system of courts, laboring under complex and often contradictory rules and statutes concerning the nature of the crime, evidence gathering, procedure, civil rights, and punishment. Complicating matters further, the whole endeavor is divided up between federal, state, local, and military jurisdictions, and between criminal and civil systems of jurisprudence that have radically different standards for determining guilt. One famous example: O.J. Simpson was found not guilty in criminal court, but legally culpable for the *same crime* in the subsequent civil suit. The Torah, meanwhile, is cut and dried. Once guilt is determined (under rules weighted to protect the innocent rather than convict the guilty) sentence is carried out forthwith—ranging from paying back someone double what you stole from him to getting stoned to death by the whole congregation. There was therefore no such thing as a "career criminal" in Israel. If you sued someone and lost, you were liable for whatever you had sought to gain. If you perjured yourself in order to convict an innocent man, the penalty he would have endured would be yours to bear. There were no prisons or police, only justice, swift and sure. You couldn't be convicted under the Torah on flimsy or trumped-up evidence, and you couldn't "buy" or intimidate a judge. Even if a guilty man were set free for lack of evidence or witnesses, it was understood that he would one day answer for his crimes before God Himself.

I could go on, but you get the picture: the American Constitution (something for which I thank God) is woefully inadequate—even in theory—in delivering "freedom and justice for all." And these days, it is bowed and bloody under a constant onslaught of compromise and reinterpretation from people who fundamentally disagree with the values (and yes, the Deity) embraced by the Founding Fathers responsible for it. Something tells me it never occurred to Washington, Jefferson, Adams, Madison, Monroe, and Franklin that the Almighty might someday be forsaken in America, that the Bible would be abandoned, or that prayer would be banned from public discourse. Such things were, frankly, unthinkable. John Adams was right when he said, "Our Constitution was made only for a moral and religious [i.e., God-fearing—not ritual-bound] people. It is wholly inadequate to the government of any other."

It's not just an American problem, of course. Godly values and principles are under attack worldwide in these Last Days. Instead of faith, the world craves ideology. In place of equal opportunity, the world demands equal results. Instead of liberty, the world desires license (until the anarchy becomes personally inconvenient, at which time they illogically demand instead bigger and stronger government to protect them). Instead of justice, the world is willing to settle for the illusion of peace and safety. In place of personal responsibility, the world wants self-serving "rights." Instead of prosperity, the world marches relentlessly toward an economic lowest common denominator (excuse the tiny minority of elites at the top). Rather than performing personal acts of charity, the majority prefers that taxes be imposed on the prosperous to "level the playing field." In place of brotherly love, the world settles for order. And the inevitable result of all this is the geopolitical reality you see before you: a dysfunctional world, rife with injustice, inequality, inept governance, tyranny, and institutional immorality precisely the opposite of what we swore we wanted (and, by the way, a world that cannot long endure).

When asked, "Would you prefer oppression or liberty," we all cry *Liberty!* But everything we do—and I mean *in every culture since the Tower of Babel* leads us inexorably toward self-imposed bondage. Even when a small group breaks their cultural chains and strikes out seeking a fresh start—the prototypical pilgrim voyage—the result is always the same: when man puts himself in charge of God's affairs, we eventually enslave ourselves. It may take generations, or centuries, but the outcome never varies. God advised us time after time: *Flee from Babylon*. But now, we've run out of uncharted lands to which we might escape. We must make our stand here, where we are, in the world as it is, not as we dream it could be. The Babylon from which we must now flee is in our own hearts.

There's no point in asking, "What should be done?" That question was answered by Yahweh—and rejected by mankind—eons ago. The human race, beginning with Israel, proved itself unwilling to follow God's natural law—the law of love. We irrationally insisted on human governance over freedom, equality over opportunity, rights over responsibility, and man over God. We mistook anarchy for freedom, and when our liberty had been squandered, we mistook societal orderliness for peace. We mistook propaganda for truth, philosophy for wisdom, and style for substance. No, the question is not "What *should* be done?" At this late date, we have forfeited our right to an opinion. The question we must now be asking ourselves is, "What *will* be done?"

People who *like* the direction the world is headed won't be very happy with the answer, I'm afraid. The same God whose simple Instructions taught us how to live in perfect liberty has also foretold what the perfect government will look like—what the perfect "political leader" will look like. Not *should* look like, mind you, but *will*. Yahweh's scriptures speak of a thousand year kingdom—one in which the King is God Himself: unlimited in power, authority, wisdom, and benevolence. Of those born into this perfect geopolitical world, some will welcome the freedom that having clear boundaries affords; and others will seethe in rebellion. But *no one* will be unaware of Who sits upon the throne of planet Earth in divine glory: Yahshua the Messiah.

### Capitalism vs. Socialism

It is taken as an article of faith among political conservatives in America that because socialism is bad, capitalism is therefore good. After all, they're polar opposites, are they not? (Hint: that's a trick question.) It is assumed that if someone is against one economic theory, he must be in favor of the other. But that is doubtless a gross oversimplification. As Winston Churchill once (allegedly) said, "If a man is not a socialist by the time he is 20, he has no heart. If he is not a conservative by the time he is 40, he has no brain." It boils down to the eternal struggle between realism and idealism, and between means and ends.

Complicating matters is the fact that these two economic philosophies tend to collect a lot a baggage—whether or not it actually belongs to them. Among conservatives, capitalism is mentally associated with free enterprise, the entrepreneurial spirit, self-sufficiency, the Judeo-Christian work ethic—and by extension (or coincidence) with religious orthodoxy, patriotism, personal

responsibility, Constitutional fundamentalism (and especially Second Amendment rights, for some reason), small-government advocacy, and an anti-abortion, protraditional-marriage, anti-nanny-state stance. But among liberal progressives, capitalism is equated with greed, heartlessness, warmongering, obscene profits at the expense of the poor, the rape of the environment, and hatred of minorities, gays, women, and the downtrodden. What we have here (apparently) is a failure to communicate.

And the shoe doesn't fit any better on the other foot. Among liberals, socialism (although they're loath to use the word) is heralded as the banner of progress, economic equality, civil rights, compassion in government, support for the working man, universal healthcare, and entitlement benefits for everyone. But conservatives view socialism in a slightly less favorable light—as the road to ruin (whether or not it's paved with good intentions), organized government thievery (or at the very least, gross fiscal irresponsibility), the genocidal abortion of millions of innocent children (an obscene percentage of them of racial minorities) and an incentive for lazy, immoral, drug-crazed, self-destructive, godless behavior. They tend to see our welfare society not as a safety net, but as a free ride, a good excuse *not* to go out and get an honest job, and (worst of all) a reason to continue voting for the politicians who are providing the "free lunch" with trillions of *borrowed* dollars that the children of productive people will someday have to pay back.

Is it any wonder liberals and conservatives can't seem to see eye to eye on *anything*? All they can perceive of the "opposing camp" is stereotypes caricatures of reality. Even when their broad goals are identical (e.g., "People should be able to be free, happy, and healthy") the two groups adamantly disagree about the best way to achieve those objectives. The socialists tend to say, "The government is your friend: let us help you with a handout and a leg up." And the capitalists tend to say, "If the government will just get out of the way, opportunity awaits: it's up to you to take advantage of it."

Who has the better system? If recent American history has anything to say about it, the Ronald Reagan conservatives have the Jimmy Carter socialists soundly beat in the "results" department. Free-market capitalism clearly delivers a more prosperous society, all things considered, than does socialism (which is, let's face it, the theoretical basis of *both* Communism and Nazism—and a twisted variant of it underpins Islam as well). But we're not talking about facts or logic here: people are driven far more by their basic philosophical predispositions than they are by the bottom line on a balance sheet. Both sides use statistics to "prove" their arguments. And you can find Christians *and* atheists on both sides of the debate. You'll note that I haven't been using "Republican" versus "Democrat" labels here, for the simple reason that (although Democrats these days tend to lean leftsocialist, while Republicans more often lean right-capitalist) party affiliation is a poor indicator of fiscal philosophy. John F. Kennedy was far more fiscally conservative than, say, George W. Bush. While perhaps the most rabidly successful socialist in American history, Franklin D. Roosevelt, was a Democrat, so was the president who (to my mind) most represents sound American fiscal policy—Andrew Jackson. So in the context of American history, political party labels aren't terribly accurate indicators of one's financial sanity.

And that's what we're talking about here: fiscal philosophy, not the moral and cultural baggage that adherents of the two competing viewpoints tend to hold dear. I realize that it's hard to separate one from the other. There's a *reason* people who collect welfare assistance year after year vote for candidates who lean toward the socialist mindset. And there is a *reason* why small business owners faced with making payroll and keeping their employees content and productive usually vote for supporters of free-market capitalism. (In the interests of full disclosure, I was a small-business owner myself for many years. I know what drives them, what motivates them—and it *isn't* greed. So if my "bias" toward conservatism is showing, now you know why.)

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That being said, it is my assessment that *both* systems—socialism and capitalism—are fatally flawed. *Neither of them* works in a fallen world. It's sort of like making the choice between being executed in your sleep with a lethal injection and being disemboweled with a rusty spoon. One of them is clearly preferable to—less painful than—the other; yet all things considered, you'd still rather there was another choice on the menu—like being set free.

Remember what I said about the tension between idealism and realism? That's the real issue here. As long as you have to choose between them, there will be gaps in your approach to problem solving. A personal example: my wife and I came of age in the '60s—a time of hippies, Vietnam War protests, free love, drugs, rock and roll, and virtually unlimited naiveté. It was the era in which America lost its innocence. Being young, we were naturally idealistic—we wanted to change the world, make it a better place. But being Christians, we were also realists, knowing we had to rely on God for any real "successes" we might enjoy. Consequently, we knew intuitively that "sticking it to the man" or "tuning in, turning on, and dropping out" (as the mantras of the day went) were really stupid strategies for effecting positive change in our world.

The world was then exhibiting the first tentative signs of the self-destructive turmoil that thoroughly permeates it today. One side (the realist-capitalist-conservative influence) said, "It's okay to be a cog in the machine; don't make waves; play it safe; get a haircut and a real job." But the other side (the idealist-liberal-socialist voice) said, "Rebel against the system; question authority; don't let anybody tell you what to do; let your freak flag fly." In the end, we did none of it—or *all* of it, depending on your point of view: realism *and* idealism.

I guess you could say that our propensity for "thinking outside the box" first showed up on our wedding day. We had a big, traditional, church wedding, and afterward, at the reception, we had a big, traditional wedding cake—or so everybody thought. On the outside it was the "required" virginal white. But on the inside, it was dark chocolate (much to the delight of our guests). Our "rebellious streak" had made its debut appearance, symbolically, anyway.

Our "realistic" side took center stage for a few years as we struggled to gain a foothold in the American Dream, but then our "idealistic" proclivities emerged once again. My wife had given me two fine sons, but it was time to "save the world" in our own little way. We began adopting kids. First an infant daughter, then another. Kids of a different race. We raised a few eyebrows. Next, a couple of older at-risk "orphanage" kids. People pointed and whispered. Then we adopted four kids with out-and-out handicaps. By our fourth or fifth time around, our parents (who had been quite supportive at first) began questioning our sanity. By the time we adopted our eleventh child, my father-in-law (who didn't have an idealistic bone in his body) was *literally* ready to write his only child out of his will.

I'll admit, the math never worked on paper. Our fathers, who were both skilled financial managers, were appalled. And I suppose the realistic bean counter capitalists in my wife and me would have been horrified as the idealistic optimists in us ran roughshod over all human logic for twenty-odd years. No retirement nest egg for us, no college funds for the kids. Mom stayed home raising the kids while I worked—often two jobs. Yet although the numbers looked disastrous, we never missed a meal or a house payment. We always had cars that ran. The kids got to grow up and make their own choices in life—some admittedly choosing better destinies than others. We survived, and thrived. But though our idealism was given free rein, it wasn't *socialism*, exactly—nobody was asked (or forced) to contribute anything to our optimistic endeavors; we got no government assistance (except for a break on our medical expenses for our four handicapped kids).

As crazy as it looked from the outside, the whole thing actually *was* "realistic" because Yahweh was providing for us every step of the way—and we knew it. Our youthful idealism was, in reality, grounded in sound, sober principles: God

was blessing us by granting our desire to serve Him. He even compensated for our failure (due to our service) to set aside any money for our retirement: He saw to it that I was *forcibly* retired at the tender age of 54—miraculously (to my mind) providing my wife and I with just enough money to live on, provided we were careful with it. This allowed me to follow the desires of my heart, writing books like this one, exploring God's Word and plan with a magnifying glass and a fine-tooth comb. I trust you're enjoying my "retirement."

The point of all that is that true success requires *both* idealism and realism, working together as a symbiotic system. And if my family's experience is any indication, in order to achieve that, God's love must be the central driving force in one's *modus operandi*. Twenty-first century conservatives laboring under the burden of encroaching socialism may assume that capitalism *in itself* is the answer to America's woes, but that's only because they've forgotten the lessons of history.

A hundred and fifty years ago, the shoe was on the other foot: the American capitalists were riding high, and in the absence of humility and reverence for their Creator, they clawed their way to the top of the food chain with no regard for anything other than their own interests. In the process they unwittingly precipitated the "class struggle" around which the socialists, from Karl Marx onward, focused their strategies. A handful of men amassed vast personal fortunes through predatory, exploitative business practices. Their arsenals included bribery—giving them control over government lands and natural resources; paying oppressive, almost slave-level wages; the creation of monopolies through buying up competitors (or driving them into bankruptcy) so they could eventually raise their own prices and realize even greater profits; and stock schemes designed to cheat unsuspecting investors out of their hard-earned capital.

These capitalist predators rightly earned the epithet "robber barons." Many of their names are still familiar to us: Astor, Carnegie, Crocker, Duke, Gould, Huntington, Mellon, Morgan, Rockefeller, Schwab, Spreckels, Stanford, Vanderbilt, and many more—men who made fortunes in finance, oil, railroads, real estate, lumber, steel, mining, shipping, and agribusiness. Some of these family names still pop up on lists of Illuminati notables—the elites who "run the world" from behind the scenes, if the conspiracy theorists are to be believed.

You'll also see many of these names on great public works, institutions of higher learning, centers of culture, and so forth. Having amassed more money than many small nations, and having spent everything they could on personal luxuries, the inevitable happened: they discovered that wealth didn't actually buy them happiness. So their tortured consciences often drove them to generosity. As it slowly dawned on them that "you couldn't take it with you," their *legacies* became more and more important to them. They hoped to be remembered as philanthropists rather than thieves, as beneficent humanitarians rather than the poster children for greed and corruption. But as far as I know, none of them did as Christ advised the "rich young ruler" in Luke 18:22: "One thing you still lack; sell all that you possess and distribute it to the poor, and you shall have treasure in heaven; and come, follow Me." Neither happiness nor heaven can be bought with stolen money.

But say what you will, these "robber barons" were also instrumental in building the infrastructure of America. They made the country great, forcing it to achieve its latent God-given potential. They dreamed big, took huge risks, and pulled America up by its bootstraps—transforming it from a blank canvas to a masterpiece of industrial might unrivaled in the world. Did the "robber barons" of the 19<sup>th</sup> century mean to do this? Or was it merely a byproduct of their intense desire to become wealthy beyond the dreams of avarice? I don't know. But one thing is certain: the capitalist system under which they operated made their endeavors possible as socialism never could have. Looking at it through the lens of twenty-twenty hindsight, the strong America that had been built using (and abusing) free-market principles was the only thing that could have stopped the advance of Nazism and Communism (both of which were socialistic systems) in the twentieth century. And curbing their advance was essential to Yahweh's purpose, for one reason: Israel's restoration is central to God's plan. Looking back on it now, it's hard to see how the revived nation of Israel could have come into being without both the Nazi holocaust and their defeat at the hands of America and its allies. One wonders if God allowed America to flourish for any reason other than Israel's benefit.

But I'm getting the feeling that, like technology, economic systems are spiritually neutral. They can be used for good or ill; they are neither good nor bad (necessarily) in their own right. It is pretty obvious that capitalism, with its emphasis on freedom and personal initiative, is generally more compatible with Yahweh's *modus operandi* (choice—free will) than socialism is, but we should not succumb to the temptation of equating the two things. Godly people operating socialistically can achieve God's purpose far more effectively than can godless men using capitalism as a working philosophy.

Case in point: Russia. During seventy years of Communist rule, the socialists were never quite able to extinguish the flame of Christian faith from the Soviet empire; and the minute the U.S.S.R. imploded, the Russian church reawakened as if from a bad dream. But with Communism—and its socialistic economic theory—as good as dead, the form of capitalism that immediately took root in post-Soviet Russia bore no resemblance to the Judeo-Christian-based free enterprise system in America—the entrepreneurial spirit that promises to reward hard work and vision with monetary rewards. Rather, it was ruled by gangsters,

extortionists, and Russian Mafia types: it was if the robber barons had returned from the grave.

Conversely, the early Church in Jerusalem practiced a localized form of "socialism" that worked beautifully for the benefit of the entire community of believers—but only because it was done out of love (as God had instructed), not because of compulsion by some human government: "Then those who gladly received [Peter's] word were baptized; and that day about three thousand souls were added to them. And they continued steadfastly in the apostles' doctrine and fellowship, in the breaking of bread, and in prayers. Then fear came upon every soul, and many wonders and signs were done through the apostles. Now all who believed were together, and had all things in common, and sold their possessions and goods, and divided them among all, as anyone had need. So continuing daily with one accord in the temple, and breaking bread from house to house, they ate their food with gladness and simplicity of heart, praising God and having favor with all the people. And the Lord added to the church daily those who were being saved." (Acts 2:41-47) In this case, socialism worked, but only because (1) they based their lives on the resurrected Christ, as taught by Peter and the other apostles; (2) there were no cheaters or scam artists among them—there was no temporal advantage to be gained by becoming a Christian in First Century Judea, quite the opposite, in fact; and (3) the community operated according to Torah rules—they were driven by love, not compelled by force or pressured by the expectations of their culture.

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Perhaps before proceeding any further, we should define our terms. Capitalism is "an economic system in which investment in, and ownership of, the means of production, distribution, and exchange of wealth is made and maintained chiefly by private individuals or corporations." It is "characterized by the freedom of capitalists to operate or manage their property for profit in competitive conditions," and "by a free market for goods."—*Dictionary.com*. The key concepts there are "private," "investment," "competition," "profit," and "free markets." The essence of capitalism is government's conspicuous absence, or at least non-involvement.

We'll never really understand "capitalism," however, without comprehending what *capital* means. It is "money used to finance the purchase of the means of production, such as machines, or the machines themselves; the wealth, whether in money or property, owned or employed in business by an individual, firm, corporation, etc.; principal, investment, assets, or stock; material wealth owned by an individual or business enterprise, available for or capable of use in the

production of further wealth, as by industrial investment." In short, it is money that is put to use making more money through the application of labor, resources, technology, or insight.

Socialism, on the other hand, is "an economic theory or system in which the means of production, distribution, and exchange are owned by the community collectively, usually through the state. It is characterized by production for use rather than profit, by equality of individual wealth, by the absence of competitive economic activity, and, usually, by government determination of investment, prices, and production levels."—*World English Dictionary*. So the key words here are "collective" (instead of private), "cooperation" (instead of competition), and "utility" (instead of profitability). Put in these clinical terms, it would appear that socialism (as an economic theory) is closer to the Christian ideal than is capitalism. So what's wrong with it?

In both systems, work is being performed, and things are being made (or grown), sold, and distributed. In both systems, investments are being made and gains are being realized. The primary bone of contention is *who is in control—who determines the distribution of wealth?* In ordinary socialism, the state—human government, not individual citizens—controls everything; while under capitalism, private individuals make their own decisions as to what to do and how to do it. (As far as economic theory goes, the only difference between Communism and Nazism is that under Communism, the government both owns and controls everything; while under National Socialism—Nazism or Fascism—business ownership is, nominally at least, left in private hands, but the government still determines wages, prices, production parameters, profit, and manpower issues. In other words, you may "own" and even profit from a business, but you operate it with a gun to your head, in accordance with the goals of the state. This system, alas, is beginning to sound all too familiar to American businessmen lately.)

Only an idiot could fail to see the pitfalls of government-run socialism. If hard work and initiative don't profit the individual, there is no point in working any harder than necessary to avoid being singled out for your laziness (unless you're a Christian, that is—doing whatever you do "as unto God, not as men-pleasers"). And if risking one's assets brings no possibility of reward, private investment disappears. Eventually, with nobody working all that hard and with nobody venturing new ideas or capital that might benefit society (since there's no incentive to do so) the financial structure of a government-run socialist society will inevitably collapse. Taxes aren't paid by people who can't (or won't) earn a living, so eventually, the shrinking productive minority ends up supporting the growing unproductive majority, and the overall standard of living is depressed. Oh, sure, you can prop your culture up for a while by borrowing money you'll

never be able to repay from naïve people who still have some (or, more likely, from banks who are empowered to create wealth out of thin air by linking it to debt). But it is impossible to keep such a socialist economy afloat indefinitely: it will—it *must*—eventually implode under its own weight.

A slave under the rule of ancient Rome had more hope than a "worker" under Soviet-style socialism, for it was still theoretically possible for him to purchase his freedom. But the *only* way to get "ahead" (and I use the word loosely) under a socialist state is to align oneself with the ruling elite—to become part of the problem. This might be as simple as selling your vote to the highest bidder whoever's willing to give you another year of unemployment benefits and a free cell phone—or as complex as "selling your soul" (figuratively, of course): becoming an active community organizer, a paid union thug, or a fund raiser or financial "bundler" for liberal causes. Who knows? You might get named as an ambassador to some country you've never heard of. You might even end up President of the United States. Either way, socialism is like economic cancer: it will continue to grow, feeding on its host until the host is dead.

But is capitalism really any better? Yes and no. It is the basis of the "American dream," in which a poor immigrant can arrive on our shores with fifty cents in his pockets, and with hard work and ingenuity can build a good life for himself and his family (or hers, of course). The "Iron Curtain" of the Soviet era was there to prevent people from fleeing from socialist repression to capitalist opportunity—it *wasn't* there to keep the capitalists out. Capitalism (in theory) rewards initiative; it provides motivation; it offers incentive; it promises rewards for risks taken. Under capitalism, it *matters* how hard you're willing to work. But there in lies its danger, subtle though it may be: it tends to encourage people to rely upon themselves.

Isn't that a *good* thing? When compared to relying on the state, most definitely. But when compared to trusting God—the true source of all of our blessings—then capitalism is revealed to be a subtle trap. It's the oldest trick in Satan's book: to offer a choice between two alternatives to God's will—*neither of which* is what Yahweh actually provided for us. In the Garden of Eden, this subtle choice was presented to Eve: "Either begin to look at God as your oppressive slave-master, a micromanaging control freak who wants to prevent you from enjoying all the Garden has to offer—or taste the fruit, and become like a god yourself, 'blessed' with the knowledge of good and evil." It apparently never occurred to Eve that "Door Number One" in this game show, the one that God had provided *up front*, was still a viable option: it offered everything that was needed for life, godliness, contentment and personal fulfillment—*including* the "knowledge of good." The only thing He had withheld was the knowledge of without. The

serpent's two "alternatives" ultimately led only to death or damnation something the slithering menace mischaracterized as "wisdom."

So if we snap at *either* piece of bait, the devil's won. He asks us to choose between idealism and reality, while God's path leads instead to abundant life, including *both* of these things. Satan insists there's a trade-off between security and prosperity—between mercy and justice—between faith and sight—between desire and fulfillment. But Yahshua says, "You're missing the point. *I* am the way, the truth, and the life. *I* am your food, your drink, the roof over your head, your vehicle, your destination, your shield, and your exceedingly great reward." Socialism and capitalism are *both* counterfeits, plausible but pointless substitutes for what Yahweh has already provided for us: the law of love.

Anyone who has a decent handle on history and current events knows how both socialism and capitalism can look good in theory but end up being exceedingly evil in practice. So let us consult the scriptural record. What "economic theory" did God describe as His ideal? If you live on Planet Earth, I'm afraid none of this is going to look particularly familiar these days....

Yahshua said, "You have heard that it was said, 'An eye for an eye and a tooth for a tooth.' But I tell you not to resist an evil person. But whoever slaps you on your right cheek, turn the other to him also. If anyone wants to sue you and take away your tunic, let him have your cloak also. And whoever compels you to go one mile, go with him two. Give to him who asks you, and from him who wants to borrow from you do not turn away." (Matthew 5:38-42) Nothing you have—your possessions, your time, your dignity, or even your mortal life—should stand in the way of tangible demonstrations of love toward your fellow man—even if he's a total jerk. Yahshua's point is that our lives do not consist of what we possess. Real life consists of *Him*—He who is "our life, the length of our days" (as Moses put it in Deuteronomy 30:20). I realize that "giving to him who asks of you" sounds an awful lot like the unhappy fate of those living under Soviet-style socialism. But if the socialist-leaning government under which you live wants to steal from you and give the booty to politicians and their sycophants, your recourse is to God in prayer, not to armed insurrection. Yes, we are to be patriots, but not of our respective earthly nations even relatively blessed ones, like America. As believers, our allegiance is supposed to be to the Kingdom of God.

Now that I've made half you angry with me, let us consider where Yahshua got these "crazy" ideas: from the Torah. Moses described the law of the Sabbatical year: "At the end of every seven years you shall grant a release of debts. And this is the form of the release: Every creditor who has lent anything to his neighbor shall release it; he shall not require it of his neighbor or his brother, because it is called Yahweh's release. Of a foreigner you may require it; but you shall give up your claim to what is owed by your brother...." The idea was, if your brother (your fellow Israelite) fell

on hard times, you were to help him out with a loan if you were able. If he got back on his feet and was able to pay you back, well and good. But if his poverty persisted, you were simply to forgive the loan. The point of the exercise was exactly the same as the one Yahshua made in Matthew 5: our lives before God do not consist of the stuff we own. That being said, this arrangement gave the lender great motivation for helping the borrower to succeed and prosper.

But there was a "safety valve." "However, there need be no poor among you; for Yahweh will greatly bless you in the land which Yahweh your God is giving you to possess as an inheritance—only if you carefully obey the voice of Yahweh your God, to observe with care all these commandments which I command you today. For Yahweh your God will bless you just as He promised you: you shall lend to many nations, but you shall not borrow; you shall reign over many nations, but they shall not reign over you." (Deuteronomy 15:1-6) On a national level, if everybody honored Yahweh's Instructions, the general level of prosperity would be so high, hardly anybody would ever be poor enough to need a loan, and recovery times would be much shorter. So theoretically, no one would be "out of pocket" very much (or very long) because he took care of his neighbor in need. Of course, those "commandments" that would keep the nation blessed by God included the tithe—which in addition to providing for the Levites (to whom Yahweh had given no land) also fed the poor: no one was ever to go hungry in Israel.

The precept was then clarified: "If there is among you a poor man of your brethren, within any of the gates in your land which Yahweh your God is giving you, you shall not harden your heart nor shut your hand from your poor brother, but you shall open your hand wide to him and willingly lend him sufficient for his need, whatever he needs." That's "needs," not "wants." Big difference. "Beware lest there be a wicked thought in your heart, saying, 'The seventh year, the year of release, is at hand,' and your eye be evil against your poor brother and you give him nothing, and he cry out to Yahweh against you, and it become sin among you. You shall surely give to him, and your heart should not be grieved when you give to him, because for this thing Yahweh your God will bless you in all your works and in all to which you put your hand. For the poor will never cease from the land; therefore I command you, saying, 'You shall open your hand wide to your brother, to your poor and your needy, in your land.'" (Deuteronomy 15:7-11)

Note a couple of factors here: (1) Attitude was important to Yahweh. If the successful man understood that his prosperity was the direct result of God's blessing (even if only through His provision of the ability and opportunity to work hard for a living) then he would be a cheerful giver—as God certainly had been to him. (2) God's blessings came up front—not so much in *response* to dire need, but so that the blessed person may *already* be in a position to help when the need arose. (3) Such charity was to be extended to "*your* poor brother," and practiced "in *your* land." That is, we are to meet needs where we find them, primarily in our

own spheres of influence. Contrary to what it sounds like at first blush, this is *not* a call for the universal forced implementation of Karl Marx's Communist credo, "From each according to his ability, to each according to his need." Meeting needs was to be local, personal, voluntary, and driven by God's love. There was nothing "institutional" about it.

It was a "given" that one man's charity was not to be another man's scam. If you *could* work, you were expected to do so. That's what all those Torah precepts about such things as leaving the edges of your wheat field unharvested were all about. In contrast to present society, the Ten Commandments (*all* of them) were at least given lip service: "You shall not steal" and "You shall not covet" were considered "settled law." So David writes, **"The wicked borrows and does not repay** [which makes him a thief], **but the righteous shows mercy and gives. For those blessed by [Yahweh] shall inherit the earth, but those cursed by Him shall be cut off."** (Psalm 37:21-22) Nowadays, when people "do not repay," there are bankruptcy laws (dear to capitalists and socialists alike) to help them legally avoid fulfilling their moral obligations. But God calls those who don't keep their promises "wicked," people who will be "cut off."

When I ran my own small business (a graphic design studio) I would occasionally get "stiffed" by new clients. So I had a rule: you only got to cheat me once. Most of them, I never saw again, and that was okay with me. One client who had made a big deal about being a Christian ran into trouble and didn't pay his bill. That hurt a little, but I let it go, forgave him, forgot about it, and went on with life. Over a year later, he was back—with an apology and a check. I think both of us were more relieved that his testimony was intact than that his account had been settled.

Let us briefly take a closer look at the Ten Commandments with an eye toward discerning any "economic system" that Yahweh may be advocating. In Commandment number one, Yahweh says, "You shall have no other gods before Me." And number two says, "You shall not make for yourself a carved image.... You shall not bow down to them nor serve them." Both of these prohibit (among other things) placing *any* man-made philosophy or system in a position of authority. If Yahweh is God (and He *is*), we are to adhere to neither socialist nor capitalist principles, except as they happen to coincide with His precepts (as both systems occasionally do). This of course behooves us to become extremely familiar with what God's Word actually says.

The sixth and seventh Commandments say, "You shall not murder" and "You shall not commit adultery." What do these things have to do with economics? I'll let James explain: "Where do wars and fights come from among you? Do they not come from your desires for pleasure that war in your members? You lust and do not have. You murder and covet and cannot obtain. You fight and war. Yet you do not have because you do not ask. You ask and do not receive, because you ask amiss, that you may spend it on your pleasures. Adulterers and adulteresses! Do you not know that friendship with the world is enmity with God? Whoever therefore wants to be a friend of the world makes himself an enemy of God." (James 4:1-4) Both capitalism and socialism are systems designed to make use of *other people*'s money. That makes both of them potential avenues for enmity—not evil in themselves, but dangerous doors to temptation.

Capitalism by its very nature fosters competition—"wars and fights." Every winner predicates a loser, comparatively, at least. Socialism, meanwhile, takes what productive people have earned and redistributes it among the unproductive. (And note: I'm not necessarily using "unproductive" as a pejorative here. Sometimes people are "unproductive" through no fault of their own—like my own handicapped children, for example.) But generally, the Biblical stance is as Paul put it: **"For even when we were with you, this we commanded you, that if any would not work, neither should he eat."**—II Thessalonians 3:10) *Both* systems, in different ways, redistribute wealth. Being fallen humans, we all (like our mother, Eve) tend to covet what we do not have, just as James said. God's plan, on the other hand, says, "Be content with what I've provided, and work while you can so that you may be a blessing to others who are less gifted."

The eighth and tenth Commandments are the most directly related to our present topic. **"You shall not steal." "You shall not covet...anything that is your neighbor's."** (Exodus 20:1-17) Neither theoretical capitalism nor pure "Acts 2" style socialism requires (or implies) any sort of theft or covetousness. But in the real world, among people who *aren't* using God's Word as their Instructions for Living, both economic theories invariably involve both of these vices.

The reason capitalists have (in certain circles) a reputation for greed is that competition (a fundamental tenet of capitalism) is basically antithetical to love. It implies an adversarial stance against one's competitors in business: "If I succeed, it will be at the expense of someone vying for the same audience or market." Where would Microsoft be if they freely shared their proprietary technology with Apple (or *vice versa*)? And yet, that is precisely what Yahweh's plan prescribes: cultivate alliances, not rivalries. The holy grail of the capitalist mindset is to achieve a monopoly—the state of affairs that exists when your would-be competitors can attain only a tiny fraction of your market share, no matter how hard they try. God says, "Help them." Greed says, "Crush them."

Or, how about this scenario? "Capitalists leverage the value of their employees' labor into profits for themselves." What the critics of capitalism fail to see is the risk-reward factor. Entrepreneurs venture their own capital, whereas employees are merely selling their time and expertise for wages. The capitalist's investment risks are *worth* something, and unlike the employee's paycheck, there is no guarantee of success. Solomon, supporting the capitalist viewpoint, said, **"Cast your bread upon the waters, for you will find it after many days."** (Ecclesiastes 11:1) There is a *reason* a landowner is entitled to a bigger share of the harvest than his hired hands. That being said, greed enters the picture when highly paid "executives" or "managers" who have no "skin in the game," are placed in positions of authority, risking nothing but their time, like any other employee. I speak from personal experience when I say that such a scenario can get very ugly, very quickly. (See my first book, co-authored with Craig Winn, entitled *In the Company of Good and Evil.*)

Paul described what the mindset of servants and masters (i.e., employees and employers) needs to be: "Bondservants, be obedient to those who are your masters according to the flesh, with fear and trembling, in sincerity of heart, as to Christ; not with eyeservice, as men-pleasers, but as bondservants of Christ, doing the will of God from the heart, with goodwill doing service, as to the Lord, and not to men, knowing that whatever good anyone does, he will receive the same from the Lord, whether he is a slave or free. And you, masters, do the same things to them, giving up threatening, knowing that your own Master also is in heaven, and there is no partiality with Him." (Ephesians 6:5-9) Anything short of this is a recipe for disaster: covetousness and theft will permeate the business endeavor. And capitalism will become the unwitting vehicle for greed.

And socialists? They sing a different verse of the same song. They *say* they yearn for a classless society, but they invariably achieve a *two*-tier system, with a small elite ruling class (including *them*, is the plan) taking what the "workers" have earned and redistributing it "evenly" among the other people—after taking their cut off the top, of course. Taking what others have earned is theft, any way you slice it, though God instructed us not to steal. (And yes, by saying this, I'm calling Federal Income taxes *theft*: America has been living under a quasi-socialist regime since 1913.) Why do the ruling elites steal? It's because they covet what they don't have: power over other people and money they didn't have to earn with their own labor. Socialists too are looking for a monopoly, but unlike the capitalists (who merely want more money) they endeavor to monopolize men's souls. To be in alignment with God's plan, "socialism" must be voluntary, and driven by love. And that pretty much guarantees that it cannot be implemented on a nationwide (or worldwide) basis. Love is an individual, personal matter—a choice we make, one soul at a time.

A quintessentially capitalistic issue is mentioned among the conditional promises of blessing that Yahweh made to the Israelites: "You shall lend to many nations, but you shall not borrow. And Yahweh will make you the head and not the tail; you shall be above only, and not be beneath, if [and that's a really big 'if'] you heed the commandments of Yahweh your God." (Deuteronomy 28:12-13) As we saw above in the context of the Law of the Sabbatical Year, all debts *between Israelites* were to

be forgiven during the seventh year. But loans made to outsiders, you'll recall, remained on the books: **"Of a foreigner you may require it; but you shall give up your claim to what is owed by your brother."** So loaning money to foreigners—or rather, *being able to* make loans (at interest) because God had given His people such abundant prosperity—is seen as a good thing.

There are a couple of issues we need to sort out here. When is it proper to charge interest on a loan, and when is it not? What is the symbolic significance of God's differentiation between "your brother" and "foreigners?" Yahweh had a lot to say about interest and usury. But before we get into that, let us review what He *didn't* say. In Act I, Scene 3 of William Shakespeare's *Hamlet*, Polonius is heard giving advice to his son Laertes: "Neither a borrower nor a lender be. For loan oft loses both itself and friend, and borrowing dulls the edge of husbandry. This above all: to thine own self be true, and it must follow, as the night the day, thou canst not then be false to any man." Because the Bard wrote in 17<sup>th</sup> Century English, some mistake this for a Biblical quote, King James style. But it runs counter to what Yahweh actually said. He forbade neither borrowing nor lending, though lending among His people was characterized more as a potential *gift* to the "borrower," and being wealthy enough to lend to a foreigner was seen as a sign of God's blessing. And "being true to yourself?" We deceive ourselves all the time: the only prudent course of action is to be true to Yahweh.

That being said, a potential downside to both borrowing and lending was pointed out by the prophet Jeremiah: "What sorrow is mine, my mother. Oh, that I had died at birth! I am hated everywhere I go. I am neither a lender who threatens to foreclose nor a borrower who refuses to pay—yet they all curse me." (Jeremiah 15:10 NLT) Note, however, that both examples of behavior he cited are contrary to the way Yahweh instructed His people to conduct their financial affairs. Moneylending was to be an expression of love and mercy toward one's fellow man, not a lucrative career path in which mercy impeded profit. Threats (of foreclosure or anything else) are never an act of mercy or love. And refusing to pay back a loan if you had the means to do so was tantamount to stealing from the lender.

God's "rules" for lending among His people were crystal clear: it was to be an act of kindness, not a business: "You shall not charge interest to your brother—interest on money or food or anything that is lent out at interest. To a foreigner you may charge interest, but to your brother you shall not charge interest, that Yahweh your God may bless you in all to which you set your hand in the land which you are entering to possess." (Deuteronomy 23:19-20) God has drawn a clear line of demarcation between Israel's internal and external financial dealings. Remember that they had been instructed to drive the Canaanites out of the land; so the "foreigners" here are literally that—gentiles living in neighboring countries, gentiles who are presumed to be idolaters, not Torah observant believers. Interest in this case could be

construed as an insurance policy against the risk of fraud that's always a possibility when dealing with godless people. So charging interest, He says, is not improper *per se*, but relationships between God's children—who are understood to be operating under God's laws just as you are, are never to be compromised or clouded by financial considerations. Love and trust must be the preeminent motivations between us. Note too that God's blessing is predicated on heeding this admonition: *if you resort to usury among My people, I will withdraw My blessing from you*.

A subtle refinement of the principle is introduced here: "If one of your brethren becomes poor, and falls into poverty among you, then you shall help him, like a stranger or a sojourner, that he may live with you. Take no usury or interest from him; but fear your God, that your brother may live with you. You shall not lend him your money for usury, nor lend him your food at a profit." (Leviticus 25:35-37) Non-Israelite sojourners, travelers, and strangers within the Land were to be treated with mercy as well as poor "brothers." So it was relative proximity, not racial profiling, that determined who was a legitimate candidate for charity. But if someone desired to live in Israel, he was required to adopt Israel's ways—their laws, their customs, and (most importantly) their God. If they refused to assimilate into Israel's Torah based culture, they were not welcome within the Land. The Land is metaphorical of the believer's walk with Yahweh: there was to be one Law for everyone, Jew and gentile alike. As I said, the Canaanite idolaters were to be expelled: this is *not* a call for compromise.

Another prophet revealed that how one deals with the lending/borrowing issue is seen as a litmus test of his relationship with Yahweh: "'The soul who sins shall die. But if a man is just and does what is lawful and right... If he has not oppressed anyone, but has restored to the debtor his pledge... If he has not exacted usury, nor taken any increase... He is just; He shall surely live!' says the Lord Yahweh.... '[But] if he has exacted usury or taken increase—shall he then live? He shall not live! If he has done any of these abominations, he shall surely die. His blood shall be upon him.'" (Ezekiel 18:4-13, abridged) As far as God is concerned, how we treat others is a matter of life and death—*ours*. I don't know about you, but I find that an appallingly sobering thought.

So whether you consider yourself a capitalist or a socialist, Yahweh's love is to be your motivation. Solomon pinpointed *why* that is so: **"One who increases his possessions by usury and extortion gathers it for him who will pity the poor."** (Proverbs 28:8) I realize that seems counterintuitive in today's culture—the idea that in the end, greed benefits not the greedy man, but his victim. Job said the same thing: **"This is what the wicked will receive from God; this is their inheritance from the Almighty.** They may have many children, but the children will die in war or starve to death. Those who survive will die of a plague, and not even their widows will mourn them. Evil people may

have piles of money and may store away mounds of clothing. But the righteous will wear that clothing, and the innocent will divide that money." (Job 27:13-17 NLT) And Yahshua echoed the same sentiment. He wasn't kidding when He said, "Blessed are the meek, for they shall inherit the earth.... Blessed are the merciful, for they shall obtain mercy." (Matthew 5:5, 7) I'm afraid very few of the capitalists *or* socialists one is likely to meet these days can truthfully be described as "meek" or "merciful."

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One thing that never quite made sense to me is the rather common phenomenon of the uber-rich socialist—the "limousine liberal," as they're known. They keep talking about "spreading the wealth" and creating a "classless society," and yet *they*—not the "capitalist pigs" they vilify—are the richest of the rich. Rush Limbaugh wryly asks, "Have you ever noticed how under capitalism the rich become powerful, and under socialism the powerful become rich?" *Investors.com* notes, "To the socialist, wealth is contemptible—except when socialist leaders are rich. For reasons we don't understand, it was fine for Venezuelan despot Hugo Chavez to die with a net worth of \$1 billion, while the [oil-rich] country's per-capita GDP languished at 96th in the world." The founder of Communist China, Mao Zedong, was supposedly the socialist's socialist, and yet his granddaughter, Kong Dongmei, was able to parlay the wealth he amassed into a fortune worth over \$815 million today. How does that work, exactly? The Communist-Islamic "founder" of the phantom Palestinian state, Yasser Arafat (an Egyptian, ironically enough) died in possession of a stolen fortune of over two billion dollars. And the world's richest man, Bill Gates (whose computer software company was *legendary* for its predatory and monopolistic practices during its early growth years) is constantly heard spouting anti-capitalist rhetoric.

Selwyn Duke, in a fascinating article entitled *The Pathology of the Rich Socialist*, (*American Thinker*—December, 2009) addresses the issue. He writes, "People such as George Soros and Michael Moore certainly talk a good game, but the next Mother Teresa they are not. Mother Teresa never criticized the freemarket system; wealth just wasn't for her. Soros and Moore are quite the opposite. They will never take a vow of poverty or dedicate themselves to helping the poor. They just want *our civilization* to take a vow of poverty and become poor. This has caused many to wonder: How can someone preach socialism while being the most rapacious 'capitalist' imaginable? Well, I have a theory about this.

"It has often been observed that those who preach liberalism the most *practice* charity the least, and research bears this out. For example, in a piece titled

'Bleeding Heart Tightwads,' self-proclaimed liberal Nicholas Kristof wrote, 'Arthur Brooks, the author of a book on donors to charity, "Who Really Cares," cites data that households headed by conservatives give 30 percent more to charity than households headed by liberals. A study by Google found an even greater disproportion: average annual contributions reported by conservatives were almost double those of liberals....'" Hypocrisy, thy name is socialist.

"Those on the Left are more interested in money than Right-wingers. Both the World Values Survey and the General Social Survey reveal that Left-wingers are more likely to rate 'high income' as an important factor in choosing a job, more likely to say 'after good health, money is the most important thing,' and more likely agree with the statement 'there are no right or wrong ways to make money.' You don't need to explain that to Doug Urbanski, the former business manager for Left-wing firebrand and documentary-maker Michael Moore. 'He [Moore] is more money-obsessed than anyone I have known-and that's saying a lot,' claims Urbanski...." While God makes it clear that prosperity is to be preferred over poverty and is one result of heeding His precepts, it is also true that "The love of money is the root of all kinds of evil." (I Timothy 6:10) We are admonished to "Keep your life free from love of money, and be content with what you have." (Hebrews 13:5) Something tells me the "Occupy" movement's ire against the capitalist leaning "Tea Party" is misplaced-it should be directed toward their own wealth-obsessed leaders. Or perhaps they just don't comprehend that the "banksters" they vilify are socialist elites to the very core, not capitalists.

"But what about *advocating* socialism? Why would these greedy leftists try to kill the goose that lays the golden eggs they crave? To understand this, we have to delve into the psychology of vice. There is a chasm between the heart and head. It is one thing to know something is wrong; it's quite another to feel it on an emotional level. This is probably why Confucius once said (and I'm paraphrasing), 'It is not that I do not know what to do; it is that I do not do what I know.' The heart is both a terrible master and a terribly alluring one, as its fires so often trump the head's cool logic. It is the demagogue of the mind's elections, whose rhetoric is hard to resist because it just feels so right."

It's the same dichotomy of which I spoke a few pages back—the struggle between idealism and realism. And it's the same issue the Apostle Paul addressed: "For what I am doing, I do not understand. For what I will to do, that I do not practice; but what I hate, that I do. If, then, I do what I do not want to do, I agree with the law that it is good. But now, it is no longer I who do it, but sin that dwells in me." (Romans 7:15-17) In other words, socialists typically let sin reign wantonly in their lives—especially their greed and covetousness. And then they try to deflect the guilt they feel by accusing capitalists of doing what is so irresistibly attractive to them. Duke continues: "Now, let's talk about that seemingly greedy man, George Soros. As a 14-year-old Jewish boy in Nazi-occupied Budapest, Hungary in 1944, he posed as the godson of a government official who had been bribed to protect him. Soros then accompanied his protector while the man would make his rounds confiscating property from Jews who were being shipped off to death camps. During a 60 Minutes interview with Steve Kroft, Soros said he felt no guilt over this...." His explanation was that if the choice was between being the predator or his prey, you're better off as the predator. His justification was that if he didn't do it, somebody else would.

"When asked about his mercenary currency trading, he said, 'I don't feel guilty. Because I'm engaged in an amoral activity which is not meant to have anything to do with guilt.' An amoral *activity*, or an amoral *man*? And when asked whether he deserved the blame for various nations' financial collapses, he replied, 'I am basically there to make money. I cannot and do not look at the social consequences of what I do.' No, but he sure looked at the social consequences of what George Bush (whom he called a Nazi in his book) did." This is all very reminiscent of what Paul told young Timothy: "Now the Spirit expressly says that in latter times some will depart from the faith, giving heed to deceiving spirits and doctrines of demons, speaking lies in hypocrisy, having their own conscience seared with a hot iron." (I Timothy 4:1-2) In context, Paul wasn't speaking exclusively about guys like Soros, but if the shoe fits....

"But I digress. It's clear that Soros sees our free-market system as an evil, much like the Nazi system whose death camps he eluded." That's an interesting exercise in projection, since Nazism was economically socialistic, not capitalistic. "And I wouldn't be surprised if, just as when he was 14, Soros sees himself as a victim caught in its web. (The difference is that in 1944, he actually *was* a victim, whereas now he is the spider.) If he doesn't rape the system, someone else will. Yet he is a victim only of his own greed.

"Taking this a bit deeper, it's much like someone in the grip of any vice. It's like a man who just cannot resist the bottle and gets falling-down drunk. He may sometimes have moments of clarity during which he actually hates his vice—and he may start to hate alcohol itself. At these times he may wish it didn't exist, for then the temptation wouldn't be there. But as long as it does exist, he can't help but partake. George Soros is a greedy man. Because of this, he cannot be 'free' of his vice until the opportunity to make money is gone. He cannot retire, cannot rest, as long as there is another dollar to be made in the evil system. He wishes his 'bottle' didn't exist, but as long as it does, he can't help but partake." Again, this is precisely the sort of spiritual pathology about which Paul warned Timothy: "But know this, that in the last days perilous times will come: For men will be lovers of themselves, lovers of money, boasters, proud, blasphemers, disobedient to parents,

unthankful, unholy, unloving, unforgiving, slanderers, without self-control, brutal, despisers of good, traitors, headstrong, haughty, lovers of pleasure rather than lovers of God, having a form of godliness but denying its power. And from such people turn away!" (II Timothy 3:1-5) Well, except for that "form of godliness" thing. People like Soros don't bother pretending to be godly. They're either proud of their agnosticism, or they revel in their rebellion against God.

"This should surprise no one. I once heard of a woman who was told by her Leftist college professor not to give money to charity because it was the government's job. But you see, to liberals, *everything* is government's job—and also its responsibility. In just the way a criminal isn't responsible for his actions because 'society made him the way he is,' Leftists want the government to fight their temptations for them, and they see a free-market society as being one big occasion of sin. The message is simple: It's not my fault if the government places us in a situation in which we can be immoral. Just as liberals outsource their charitable responsibilities, they outsource their moral ones.

"The problem is that it doesn't work. There will always be 'the other side' and those 'from whom the thing is being taken away.' There will always be an 'evil system.' In communist governments, those in power—who are 'more equal than others'—get the new Mercedes, the plush apartment, the fine food, and all the other luxuries any commissar could want. The George Soroses of the world would always try to be among them, for greed would still lie in their hearts. And it wouldn't be hard for them to rationalize, either. They would simply reason, 'If I'm not more equal than others, someone else will be. If I don't do it, someone else will.'"

It is clear that in practice, the traditional Judeo-Christian ethos is far more compatible with capitalism than it is with socialism. But the Law of Love is incompatible with *both* systems. Capitalism (ideally) says to work hard and compete honorably in order to elevate your status and level of prosperity above what it used to be. The function of money is to make more money by using it as leverage: investing it in worthwhile enterprises that promise to pay dividends far beyond the capabilities of the investor himself. Always keep your eye on the bottom line; invest for the long haul.

Socialism, meanwhile, says that honor, morality, and honest labor are for suckers. What works most effectively is extortion through democracy (the tyranny of the majority), opportunism (never letting a crisis go to waste, even if you have to create one yourself), and outcome-based strategies (the ends justify the means). Money is a useful means with which to lubricate the wheels of pride, to elevate yourself over the status of your fellow man—to make yourself "more equal than others." So forget about the bottom line; the top line is more important: take advantage of short term gains whenever the opportunity arises, because you never know when you're going to run out of other people's money.

But Love says, "Trust your Creator for the necessities of life, and be content with (and thankful for) whatever He has provided. Work hard so that you may have something to share with those less blessed than you are. Plant and water (i.e., invest and manage) but trust God for the increase." Money (capital) is to be desired neither for its own sake nor used to enhance one's relative status. It is, rather, to be used for good—loaned or given to those in need, not lent to them at usurious interest. It is the means, not the end. It is to be spent freely to advance the kingdom of God, not hoarded, flaunted, or leveraged.

I realize that may sting a little. I'm smarting a bit myself, realizing that the lesser of two evils is still evil—especially when God has shown us what is good and right and true, even if it is counterintuitive to everything we've ever been taught. Let us have the courage and good sense to "choose the better part" while we still can. We're running out of time.

## The Looming Debt Crisis

Paul offered this insightful advice: "Owe no one anything except to love one another, for he who loves another has fulfilled the law. For the commandments, 'You shall not commit adultery,' 'You shall not murder,' 'You shall not steal,' 'You shall not bear false witness,' 'You shall not covet,' and if there is any other commandment, are all summed up in this saying, namely, 'You shall love your neighbor as yourself.' Love does no harm to a neighbor; therefore love is the fulfillment of the law." (Romans 13:8-10) While his admonition goes far beyond monetary debt, it certainly includes it. What we owe is a measure of our bondage, self-imposed or not. And bondage (in this case defining the relationship between the lender and the borrower) implies an adversarial relationship: there is *automatically* a state of enmity between the one who wears the chain and the one who holds the key.

This, of course, explains why Yahweh instructed us to forgive the debts owed to us by our brothers. He wants us to live in harmony, in peace, in love. And that's hard to do if a cloud of indebtedness looms over our relationship. So Paul wisely advises us to remain debt free.

I realize that this is very hard to do in today's world—especially in "advanced" nations like America. *Economist.com* publishes a global debt clock, which at the moment is showing almost 53 trillion dollars of public debt owed by nations worldwide. (It all depends on whose debt you're counting, of course. *Bloomberg.com*, in a March 9, 2014 article, puts total global debt (presumably including individuals) at an even \$100 trillion!) But the accompanying map reveals something fascinating: the more "developed" a nation is, the more it's likely to owe, generally speaking. In other words, their governments have spent them into an illusory prosperity. The United States, Canada, The European Union, Brazil, India, China, Israel, Japan, and Australia are all awash in a sea of debt, while places in which most of us would be less likely to want to live, like Botswana, Mali, Cameroon, Paraguay, Libya, Oman, and Papua New Guinea, have very little sovereign debt in comparison. The places with lots of debt also tend to have more good roads, clean water, a high degree of industrial or technological development, good communications, and strong national defense forces. The places with comparatively little debt have none of that. So the case could be made that we're all dirt poor, but some nations have spent enough borrowed money to make us *look* rich to our neighbors.

This is doubtless true in our private indebtedness as well. The biggest factor? Very few of us in the "first world" own our homes outright; most "homeowners" have mortgages—loans—of some sort. Even if you're renting, your landlord is most likely making payments to a bank out of your rent check every month. The days are long gone when you can simply move beyond the frontier, find some unoccupied land, cut down the trees, and build yourself a cabin. There *is* no more frontier; all of the land is "owned" by someone. But perhaps that was always the case, and our pioneer forebears simply chose to ignore the moral ramifications of their explorations.

But what is the alternative? To be homeless? To have no possessions? In a way, yes. The older I get, the more clearly I realize that of all the nice things I possess, I don't really "own" anything. That is, everything I "have" will be left behind for others to use or discard after I'm gone. I'll take none of it with me. In a sense, it's all "borrowed." So in the end, there is only one thing more idiotic than being defined by one's possessions—to be *enslaved* by them through debt.

That being said, our homes *aren't* frivolous and unnecessary expenditures. They're essential tools—up to a point. They keep us warm and dry, provide a safe environment in which to live our lives and raise our children, and comprise a geographical center from which to make our forays out into the world. During His ministry years, Yahshua had no home of His own, and yet He made frequent use of the permanent dwelling places of His followers. So it is obvious (not to mention comforting), that wanting or having a home in which to live is not in itself considered a moral failing or character flaw—even if you can't own it outright. Ideally, as I said, one's home is seen as a useful tool with which to advance the kingdom of God.

The danger lies in letting our possessions (beginning with our homes) become vehicles for pride. It's human nature to choose our dwelling places (or anything else we might buy) not so much on what we need as on how much we can afford. I'm as guilty of this as the next guy, I'm afraid. We all need to examine our motives, for we will all stand before God at some point. Will our justifications and rationalizations for spending—*borrowing*—more money than we had to, just because we *could*, make any sense if we have to explain our actions at the Judgment Seat of Christ? What did we really get in exchange for incurring all that extra debt?

Our personal debt picture is but a microcosm of what goes on in the larger world. Nations incur debt, just as families and individuals do. I explained (back in Chapter 20) how the practice of national debt began, and how it has grown over the centuries. It is now time to examine the issue from the viewpoint of Last Days chronology, for a debt crisis of unprecedented proportions is looming over the near horizon—and not just in America, but worldwide. The financial condition of the human race is a house of cards, and at this late date it won't take much of a breeze to bring it crashing to the ground.

Economist and attorney Ellen Hodgson Brown J.D., on her website *EllenBrown.com*, provides some background: "Countries everywhere are facing debt crises today, precipitated by the credit collapse of 2008. Public services are being slashed and public assets are being sold off, in a futile attempt to balance budgets that *can't* be balanced because the money supply itself has shrunk. Governments usually get the blame for excessive spending, but governments did not initiate the crisis. The collapse was in the banking system, and in the credit that it is responsible for creating and sustaining."

Really? Just to set the record straight at the outset, the debt crisis has been building since *long* before the credit collapse of 2008. And governments and banks share an incestuous relationship—and they have for centuries. What one does, the other enables. What one implements, the other blesses. What one perpetrates, the other indemnifies. One cannot commit its financial corruption without the assistance and collusion of the other. So not surprisingly, governments and private financial institutions are *both* characterized as part of Babylon in scripture. They are the right and left hands of the same unclean beast.

Brown writes, "Contrary to popular belief, most of our money today is not created by governments. It is created by private banks as loans. The private system of money creation has grown so powerful over the centuries that it has come to dominate governments globally. But the system contains the seeds of its own destruction. The source of its power is also a fatal design flaw. The flaw is that banks advance 'bank credit' that must be paid back with interest, while having no obligation to spend the interest they collect so that borrowers can earn it again and again, as they must in order to retire the debt. Instead, this money is invested in various 'casinos' beyond the borrowers' reach. This leads to a continual systemic need for more new bank credit money, more debt with more interest attached, to prevent widespread defaults and deflationary collapse." She quotes from a booklet published by the Chicago Federal Reserve: "[Banks] do not really pay out loans from the money they receive as deposits. If they did this, no additional money would be created." They say this as if it were a bad thing. Since wealth is no longer tied to a standard (like gold), every "new" dollar created out of thin air in tandem with debt devalues the dollars that were already in circulation. Can they not see the problem with this? "What [banks] do when they make loans is to accept promissory notes in exchange for credits to the borrowers' transaction accounts. Loans (assets) and deposits (liabilities) both rise [by the same amount]."

She then explains, "That's the conventional model, but banks actually create the loans *first*. (Picture how a credit card works.) Banks need deposits to clear their outgoing checks, but they find the deposits later. Banks create money as loans, which become checks, which go into other banks. Then, if needed to clear the checks, they borrow the money back from the other banks. In effect, they borrow back the money they just created, pocketing the spread between the interest rates as their profit." So basically, it's all a shell game.

In the late 17<sup>th</sup> century, the wealthy often deposited (or "banked") their gold with goldsmiths for safekeeping, accepting paper receipts called "banknotes" which could (theoretically) be used at any time to retrieve their physical gold, but proved so convenient they became media of exchange in their own right. The goldsmiths noticed that their depositors actually reclaimed their gold from their "banks" only about ten percent of the time. This epiphany led to the common practice of printing up to *ten times* the value in banknotes the goldsmith-bankers actually held in reserve—loaning them out to governments and powerful individuals who ostensibly could raise the funds to pay interest on the loans. In other words, 90% of the paper money in circulation was, in fact, *counterfeit*—backed by nothing but statistics and presumption.

Brown explains: "This system was called 'fractional reserve' banking and was institutionalized when the Bank of England was founded in 1694." If you'll recall, I described in chapter 20 how the Dutch nobleman William Stradholder (a.k.a. William of Orange) married into the British royal family, repaying his benefactors in Holland five years later (1694) by borrowing at interest, on behalf of England, 1,250,000 pounds from the Bank of England—a front for the Jewish banking houses of Amsterdam—and much more shortly thereafter. In the process he created the type of national debt we know today. "The bank was allowed to lend its own banknotes to the government, forming the national money supply. Only the interest on the loans had to be paid. The debt was rolled over indefinitely. That is still true today. The U.S. federal debt is never paid off but just continues to grow, forming the basis of the U.S. money supply." Theoretically, if all the

world's debts were to be paid off at once, the money supply would virtually disappear overnight.

The history of paper currency in the U.S. is checkered at best. It has flipped back and forth several times from government-issued notes to instruments put in circulation by privately owned banks (such as the Federal Reserve Bank). But as far as I can tell, there have only been a few short periods in the history of our nation in which the fractional reserve system in one permutation or another was banned. For example, our seventh President, Andrew Jackson, abolished what then served as a "central bank" and returned the nation to the gold standard—insisting that every paper dollar must have something of real value backing it up. In the process, he managed to virtually eliminate America's national debt (much of it by selling off public lands to private individuals).

But today (and for the past hundred years) America has been saddled with a fundamentally dishonest monetary system that creates "wealth" out of thin air and self-delusion. What can be done? Brown opines, "There are other ways to create a banking system, ways that would eliminate its Ponzi-scheme elements and make the system sustainable. One solution is to make the loans interest-free; but for Western economies today, that transition could be difficult." Under Torah rules, this is precisely the system prescribed. Of course, it won't work unless its foundation is love for one's fellow man—something that in these Last Days is in woefully short supply.

Furthermore, "interest-free" has to be an honest principle, not a scam. Islam has an "interest free" rule for loans between Muslims—an idea Muhammad picked up from the Jews of Yathrib (Medina) before he killed them, stole all their belongings, and sold their wives and children into slavery. But such "halal" loans, as they're known, get around the "no usury" requirement with semantics and fancy footwork. The halal bank buys the item for one price, and sells it to the borrower *at a profit*. The borrower then pays back the higher loan amount "without interest" (cough, choke) in easy installments. In other words, there's a cost to borrowing money, but you may not call it "interest" under Sharia law. Calling it an "administration fee" doesn't fool anybody (except Muslims, of course).

Brown continues: "Another alternative is for banks to be publicly-owned. If the people collectively own the bank, the interest and profits go back to the government and the people, who benefit from decreased taxes, increased public services, and cheaper public infrastructure. Cutting out interest has been shown to reduce the cost of public projects by 30-50%.

"In the United States, this system of publicly-owned banks goes back to the American colonists. The best of the colonial models was in Benjamin Franklin's colony of Pennsylvania, where the government operated a 'land bank.' Money was printed and lent into the community. It recycled back to the government and could be lent and relent. The system was mathematically sound because the interest and profits were returned to the government, which then spent the money back into the economy in place of taxes. Private banks, by contrast, generally lend their profits back into the economy, or invest in private money-making ventures in which more is always expected back than was originally invested. During the period that the Pennsylvania system was in place, the colonists paid no taxes except excise taxes, prices did not inflate, and there was no government debt...." Of course, to work like this, the "public bank" had to be run for the public's benefit. I'm afraid most governments don't know what that is any more.

So she concludes, "To escape the debt trap of the global bankers, the power to create the national money supply needs to be restored to national governments. Alternatives include: (1) Legal tender issued directly by national treasuries and spent on national budgets. (2) Publicly-owned central banks empowered to advance the nation's credit and lend it to the government interest-free. (3) Nationalization of bankrupt banks considered "too big to fail" (after expunging or writing down bad debts on inflated bubble assets). These banks could then issue credit to the public and serve the public's banking needs, with the profits recycling back to the government, defraying the tax burden on the people. (4) Publicly-owned local banks (state, provincial, or municipal). Publicly-owned banks have been successfully established and operated in many countries, including Australia, New Zealand, Canada, Germany, Switzerland, India, China, Japan, Korea, and Malaysia." And one state in the U.S., North Dakota, successfully runs its own state-owned bank—and has since 1919.

The central issue, according to Brown, is what happens to the interest being charged. Is it siphoned off as profit for greedy fat-cat bankers, or is it returned by a benevolent government to the state's infrastructure, reducing taxes in the process? My kneejerk take is that this view may be a naïve and nearsighted oversimplification of the matter. Although there are doubtlessly benefits to the "national bank" system she advocates, something tells me she hasn't factored in the growing trend toward consolidation of power and globalization that characterizes our world. As governments grow in power and influence, so does their inability (or unwillingness) to respond to the needs of their constituents. They become repositories of power for power's sake, and the benevolence that may have been the primary goal of a small governmental entity (like Franklin's Pennsylvania, or North Dakota, for example) is transformed into the unwelcome outcome of the philosophical agenda of the powerful elite class at the top. The bigger the government, the bigger the problem. (And then, of course, there's the "conspiracy theory" that governments these days are actually run from behind the scenes by the very elites who own and operate the private central banks. Just because it sounds hysterical, don't assume it's necessarily untrue.)

Today, North Dakota's oil wealth is plowed back into the local economy by its state-owned bank through improved infrastructure and lower taxes for its citizens. In contrast, the Federal government pursues a self-destructive energy policy that squanders hundreds of billions of dollars on green energy boondoggles, while at the same time doing everything it can to stifle development of carbon-based natural resources that have the potential to make our nation 100% energy independent (and far less vulnerable to foreign intervention)—all because of our current leadership's philosophical predisposition toward a "green" agenda (one based mostly on junk science and faulty logic—or is it greed, the tempting prospect of carbon-credit riches?). If *a tenth* of the money that our federal government has wasted on failed green projects had been invested instead on scientific research into ways to utilize coal more cleanly, the whole country would be better off—safer, less vulnerable, and far more prosperous.

But even this line of reasoning, though accurate, misses the point. The Bible clearly predicts the sudden and irreversible implosion of the entire world's financial infrastructure, and its replacement with the biggest, most brutally concentrated government humanity has ever seen—the worldwide reign of the charismatic—ostensibly *messianic*—figure known in scripture as the Beast, the Man of Sin, the Son of Perdition, or the Prince who is to come: in a word, the Antichrist. With all of the world's power (including finances) concentrated in the hands of this one individual, it won't matter whether the "bank" is government-owned or privately owned, for the two systems will not only be in league with each other, they will be, for all intents and purposes, the *same thing*. For three and a half terrifying years, one satanically inspired individual will control *everything*, public and private. And every manmade economic theory ever promulgated will be dust in the wind.

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Although the debt crisis is a worldwide phenomenon, its mechanism is perhaps easiest to perceive by studying the American permutation. Kimberly Amadeo, writing for *About.com* (October, 2013), explains how it works: "The U.S. budget deficit is when Federal spending is greater than the tax revenue received for that year. In Fiscal Year 2014, the budget deficit was projected to be \$744 billion. This is much lower than the all-time high of \$1.4 trillion reached in FY 2009." That's the good news. The bad news is that "The U.S. Debt exceeded \$17 trillion on October 17, 2013. This is nearly *three times* what the debt was in 2000, which was \$6 trillion." The rate at which the national debt has skyrocketed during Mr. Obama's tenure is truly terrifying. No sane person can pretend any

longer that the nation's finances are under control, or that the situation can be fixed with conventional solutions, however sound.

*"How Does the Deficit Affect the Debt?* Each year, the deficit is added to the debt. The Treasury must sell Treasury bonds to raise the money to cover the deficit. This is known as the public debt, since these bonds are sold to the public.

"In addition to the public debt, there is the money that the government loans to itself each year. This money is in the form of Government Account Securities, and it comes primarily from the Social Security Trust Fund. These loans are not counted as part of the deficit, since they are all within the government. However, as the Baby Boomers retire, they will begin to draw down more Social Security funds than are replaced with payroll taxes. These benefits will need to be paid out of the general fund. This means that either other programs must be cut, taxes must be raised or benefits must be lowered." One possible "solution" Amadeo didn't mention was reducing the number of seniors drawing their pensions, thereby reducing the amount of unfunded liability. More on that in a bit. Wake up and smell the genocide. "Unfortunately, legislators have not yet agreed on an effective plan to meet Social Security obligations." Robbing Peter to pay Paul has never been a sound long term financial strategy, but that has never prevented politicians from doing it.

*"How Does the Debt Affect the Deficit?* The debt affects the deficit in three ways. First, the debt actually gives a better indication of the true deficit each year. You can more accurately gauge the deficit by comparing each year's debt to last year's debt. That's because the budget deficit, as reported in each year's budget, does not include the amount owed to the Social Security Trust Fund. However, this is a debt that will need to be repaid one day [if financial disaster is to be averted], and so the amount borrowed from it is a more accurate description of each year's government liabilities than the reported budget deficit.

"Second, the interest on the debt is added to the deficit each year. About 5% of the budget is allocated to debt interest payments. Interest on the debt hit a record in FY 2011, reaching \$454 billion. This beat its prior record of \$451 billion in FY 2008—despite lower interest rates. By the FY 2013 budget, the interest payment dropped to \$248 billion, as interest rates fell to a 200-year low. However, as the economy improved, interest rates rose starting in May 2013. As a result, interest on the debt is projected to quadruple to \$850 billion by FY 2021, making it the fourth largest budget item." So we've got a one-two punch, and both fists are principles the Bible warned against: (1) Borrowing without repaying (called "wickedness," if you'll recall), and (2) charging your brother interest. No wonder we're in such deep trouble.

"Third, the debt can decrease tax revenue in the long run. This would further increase the deficit. As the debt continues to grow, creditors can become

concerned about how the U.S. government plans to repay it. Over time, these creditors will expect higher interest payments to provide a greater return for their increased perceived risk. Higher interest costs dampen economic growth." Once the process gets started, it can potentially escalate into a financial death spiral.

Our largest foreign creditor, China, is understandably upset with the insane financial policies being employed by American politicians—of both parties. The *Washington Post* reports that "Zhao Xijun, deputy dean at Beijing's Renmin University School of Finance... likens Congress to kidnappers holding global investment for ransom. 'The two political parties in the U.S. have disregarded the interest of the rest of their country and the world,' he said." Nothing good can come from such recklessness, though it is agreed that China can't unilaterally divorce itself from the American dollar without causing irreparable harm to itself in the process. What will happen to China's now-robust economy after America and Europe fall off the fiscal cliff into oblivion is revealed by their prophesied reaction: review the sixth trumpet judgment: Revelation 9:13-21.

Amadeo's treatise continues: "*How Do the Deficit and Debt Affect the Economy*? Initially, deficit spending and the resultant debt boosts economic growth. This is especially true in a recession. That's because deficit spending pumps liquidity into the economy. Whether the money goes to jet fighters, bridges or education, it ramps up production and creates jobs...."

That's why both Presidents Bush and Obama pushed massive stimulus bills. But there's a downside. Deficit spending is like trying to run your body on sugar and caffeine: you can't keep doing it forever without crashing. At some point, you need *real food* to keep going. So Amadeo points out, "In the long run, the resultant debt is very damaging to the economy, and not only because of higher interest rates. The U.S. government may be tempted to let the value of the dollar fall so that the debt repayment will be in cheaper dollars, and less expensive. As this happens, foreign governments and investors will be less willing to buy Treasury bonds, forcing interest rates even higher." It's the law of supply and demand: as we supply less value to our potential investors, they will invest in less of what we have to offer. The resulting death spiral is like a snake eating its own tail.

"The greatest danger comes from the debt to Social Security [the biggest single component of the U.S. National Debt]. As this debt comes due when Baby Boomers retire, funds will need to found to pay them. Not only could taxes be raised, which would slow the economy, but the loan from the Social Security Trust Fund will stop." Truth be told, borrowing from this source should never have been allowed in the first place. "More and more of the government's spending will need to be devoted to pay this mandatory cost. This would provide less stimulation, and could further slow the economy." And it hardly needs to be added that the liberal-progressive policies our politicians have been pushing for the past few decades are a natural disincentive to honest tax-generating work.

It doesn't take a rocket surgeon to figure out the logical solution for the godless mind. If you've been stealing (okay, *borrowing* without any intention of repayment) from a large segment of the population—in this case, seniors—how can you avoid the inevitable financial catastrophe that will happen when the bill comes due? It's simple: you do everything you can to make sure they don't live long enough to collect on the debt. Enter the Affordable Care Act (a.k.a. Obamacare). Just as our knowledge of health and nutrition is finally making it possible for folks to live well into their eighties, the government is finding new ways of withholding life-saving care from people who are beyond a certain age. "Comfort care," advocated by "death panels," will provide pain killers, but no real treatment. The message is, "Thanks for all the money, but please die now."

Of course, Social Security itself is merely a Ponzi scheme designed by liberal progressives to promise "retirement benefits" to people who would never be able to collect on them. When the program was launched in 1935, the average life expectancy was 65 years. So on average, you weren't expected to receive your money back (after a lifetime of paying into the system) before you were toes up. (Plans to "reform" the system invariably include raising the age of eligibility.) It's really no wonder politicians came to view the Social Security "trust fund" as a national piggy bank into which they could dip any time they liked, even though the money didn't belong to them. Dead people collect no Social Security benefits.

At the same time, there is a war on nutrition (God's idea of "medicine.") Onerous government regulations are placed upon organic farmers, intended to either drive the costs of their products up beyond the reach of the ordinary person (especially seniors on fixed incomes), or drive them out of business altogether. And the FDA resists all efforts to require the labelling of foods to reveal the presence of GMOs—knowing that such knowledge would allow people to choose more healthful alternatives. If our government's recent policies can be taken at face value, their *goal* is to use people up and throw them away.

I know that sounds cynical, even a little bit paranoid, but their raids on the Social Security trust fund aren't the only indication of this attitude. Recent cuts in U.S. defense budgets are designed to sidestep the *downstream* costs of our military preparedness: medical expenditures and pension benefits for men and women who have served their country with honor, with the expectation that their nation would have their back when the time came. I don't know which hurts more: getting injured by the enemy in battle, or getting thrown under the bus by your own commander-in-chief and his political sycophants.

Once again, I must contrast this sorry state of affairs with Yahweh's plan and purpose. Instead of treating the elderly as a burden to be dropped at the earliest convenience, God says, **"You shall rise before the gray headed and honor the presence of an old man, and fear your God: I am Yahweh."** (Leviticus 19:32) Besides the baseline Law of Love, there is something to be gained from treating the elderly with respect. They (I guess I'd have to say "we" now, at my age) have decades of valuable experience. It's not that we're better, or stronger, or more educated than younger generations; but we have made the same mistakes (or have seen the same traps) with which our younger counterparts are confronted. Ideally, having been around the block a few times, we know where the potholes are: we know what works in the real world, and what leads to unforeseen disaster. (That being said, there's no fool like an old fool. Some people seem incapable of learning *anything* of value, no matter how miles they've got on the "oldometer.")

And honoring our military forces? God sent His people to war for very different reasons than we do today. I understand His motivation (clearing the promised land of Ba'al worshipping Canaanites), but for the life of me, I can't figure out why America feels it has to maintain such a far-flung budget-busting military presence. According to Ron Paul, the U.S. maintains 900 military bases or installations in 130 countries around the world. Since World War II, we have assumed the role of the world's policeman. Again, I have no idea why we feel we must do this. If we wanted to protect ourselves from foreign enemies, it would seem the first logical step would be the comparatively simple matter of securing our own borders and ports-being circumspect in our immigration policiessomething we inexplicably refuse to do. But if we merely want to project our power and pride, we need to repent and get over ourselves: that's the *last* thing God would honor. As far as how to treat our military personnel is concerned, I would suggest a careful reading of Deuteronomy 20 for God's take on the subject. But on a more basic level, we should promise our military recruits *nothing* we aren't prepared to deliver. As Hosea said, "They have spoken words, swearing falsely in making a covenant. Thus judgment springs up like [toxic] hemlock in the furrows of the field." (Hosea 10:4) Keep the promises you make, and don't make promises you can't keep—*especially* to people who volunteer to put themselves in harm's way on your behalf.

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The point of all that is merely that we—the whole world—are in trouble with debt, and there doesn't seem to be any way out, short of a total reboot of the system (something blatantly predicted in Bible prophecy, by the way). The prolific Michael Snyder, in his somewhat frenetic website *TheEconomicCollapseBlog.com*, writes, "The U.S. economy and the U.S. financial system are unsustainable from any angle that you want to look at things.

We are drowning in government debt, we are drowning in consumer debt, Wall Street has been transformed into a high risk casino where our largest financial institutions are putting it all on the line on a daily basis, we are consuming far more than we are producing, there are more than 100 million Americans on welfare, and we are stealing more than 100 million dollars an hour from future generations to pay for it all. Anyone who believes that we are in 'good shape' does not know the first thing about economics. Sadly, the U.S. is not alone. Nations all over the globe are experiencing similar problems. The global economic crisis is just beginning, and it is going to get much, much worse. I hope that you ready."

Just because he's a little hysterical, it doesn't mean he's *wrong*. But Michael, there is no such thing as "ready" (outside of Christ, that is). Total economic collapse of the sort you're predicting (or the Bible, for that matter) will be far more serious than shortages at the grocery store, rolling power outages, or Great-Depression-level unemployment numbers. Even "preppers" are going to find themselves woefully unprepared. The collapse will mean starvation on a massive scale, the disintegration of society into chaos, roving bands of armed thugs willing to use force to take what they want—only to discover that there is nothing much to steal. Mogadishu will provide the model. It's going to get ugly. The only question is *when*. Can the ship of global finance remain afloat until the fourth decade of the twenty-first century? At the moment, it looks iffy.

Is this collapse inevitable? Snyder thinks it is, and he's not alone. In an article entitled, *The Sovereign Debt Crisis Is Never Going To End Until There Is a Major Global Financial Collapse* (July 7th, 2011), he writes, "In the past, there certainly have been governments that have gotten into trouble with debt, but what we are experiencing now is the first truly global sovereign debt crisis. There has never been a time in recorded history when virtually all of the governments of the world were drowning in debt all at the same time. This sovereign debt crisis is never going to end until there is a major global financial collapse. There simply is no way to unwind the colossal web of debt that we have constructed in an orderly fashion. Right now the EU and the IMF have been making 'emergency loans' to nations such as Greece, Ireland and Portugal, but that is only going to buy those countries a few additional months. Giving more loans to nations that are already drowning in red ink may 'kick the can down the road' for a little while but it isn't going to solve anything. Meanwhile, dozens more nations all over the globe are rapidly approaching a day of reckoning...."

He enumerates the financial woes of Greece, seen as a harbinger of the inevitable bankruptcy of Portugal, Spain, Italy, and Ireland—threatening to implode the E.U.'s entire economy: "The following is a portion of what Moody's had to say when they cut the credit rating of Portugal by four notches: 'Although

Portugal's Ba2 credit rating indicates a much lower risk of restructuring than Greece's Caa1 rating, the EU's evolving approach to providing official support is an important factor for Portugal because it implies a rising risk that private sector participation could become a precondition for additional rounds of official lending to Portugal in the future as well. This development is significant not only because it increases the economic risks facing current investors, but also because it may discourage new private sector lending going forward and reduce the likelihood that Portugal will soon be able to regain market access on sustainable terms."

Snyder asks, "Do you understand what is being said there? Basically, Moody's is saying that the terms of the Greek bailout make Portuguese debt less attractive because Portugal will likely be forced into a similar bailout at some point. If the EU is not going to fully guarantee the debt of the member nations, then that debt becomes less attractive to investors.... Unfortunately, if the dominoes start to fall, the entire EU is going to go down."

But they won't go down without a fight. When the two largest banks in Cyprus failed, the government hatched a plan to simply steal the shortfall from Cypriot bank account holders. *DailyFinance.com* reports, "Initially, part of this hit was going to be against insured depositors—ordinary savers whose accounts were insured by the European Union up to €100,000. Had the plan gone through as proposed, they would have faced a one-time 6.75 percent tax on their accounts. However, there was such local and international uproar against the notion that ordinary citizens could have their bank accounts raided by the government that a new bailout plan was devised. This one protected insured depositors but still left those with various levels of 'unsecured debt'—i.e., very large deposits—in the country's two biggest banks on the hook." Can you spell "slippery slope?"

Michael Snyder's treatise continues: "Big banks all over Europe are highly exposed to sovereign debt and they are leveraged to the hilt. It is almost as if we are looking at a replay of 2008 in many ways. When Lehman Brothers finally collapsed, it was leveraged 31 to 1. Today, major German banks are leveraged 32 to 1, and they are currently holding a tremendous amount of Greek debt." It makes you almost nostalgic for the good old days of William of Orange, when leverage of only ten to one, as insane as that was, was the norm. "Anyone with half a brain can see that this is going to end badly. So how is the European Central Bank responding to this crisis? They are raising interest rates once again...."

"But Europe is not the only one facing a horrific debt crunch. In Japan, the national debt is now up to about 226 percent of GDP. So far the Japanese government has been able to handle a debt load this massive because the citizens of Japan have been willing to lend the government gigantic mountains of money at interest rates so low that they are hard to believe. When that paradigm changes, and it will, Japan is going to be in a massive amount of trouble. In fact, an article in *Forbes* has warned that even a very modest increase in interest rates would cause interest payments on Japanese government debt to *exceed total government revenue* by the year 2019.

"Of course the biggest pile of debt sitting out there is the national debt of the United States. The U.S. is so enslaved to debt that there is literally no way out under the current system. To say that America is in big trouble would be a massive understatement. In fact, the whole world is headed for trouble.

"Right now government debt around the globe continues to soar at an exponential pace. At some point a wall is going to be hit. The Wall Street Journal recently quoted Professor Carmen Reinhart as saying the following about what we are facing: 'These processes are not linear,' warns Prof. Reinhart. 'You can increase debt for a while and nothing happens. Then you hit the wall, and bang!—what seem to be minor shocks that the markets would shrug off in other circumstances suddenly become big.' That is the nature of debt bubbles—they keep expanding and expanding until the day that they inevitably burst...."

"The combination of huge amounts of debt and huge amounts of leverage is incredibly toxic, and that is what we have all over the globe today. Almost every major nation is drowning in a sea of red ink and almost all of our major financial institutions are leveraged to the hilt. There is only one way that the sovereign debt crisis can end: very, very badly." It's one thing to become homeless. It's something else entirely to watch your children starve to death. But if current forces continue unabated, that's where we're headed.

Is it all accidental, the result of arrogant and shortsighted politicians and bankers doing what they thought they had to in order to keep their cushy positions of power? Or is there something more nefarious going on? Dave Hodges, writing for *TheSleuthJournal.com* (February 15, 2014) reports: "I recently interviewed Daniel Estulin, the author of what will be the newest best seller, *TransEvolution: The Coming Age of Human Deconstruction*. Estulin wrote the book based largely on a Bilderberg white paper which was smuggled to him by a Bilderberg insider. The document was filled with information which spelled the end of the human race as we know it...." Interesting: the Bible describes the very same catastrophe, on the same timeline, perpetrated with the same methods, by the same sort of people, with the same motives. The only surprise (to the Bilderbergers) will be who is left standing when the smoke clears—*not them*. Oops.

The "Bilderberg Group," you may recall, "is an annual private conference of approximately 120 to 140 invited guests from North America and Europe, most of whom are people of influence. About one-third are from government and politics, and two-thirds from finance, industry, labour, education and communications."— BBC News. Like it or not, these are the people who shape the geopolitical world in which we live—the power behind every throne. What happens behind their closed doors becomes public policy. They define what "politically correct" means. You can call them the Illuminati if you like; the Bible calls them Babylon (or at least one permutation of it).

Anyway, Hodges states, "Estulin mentioned that the wholesale destruction of the world's economy is *not* an accident, nor is it a miscalculation or the result of political shenanigans. This destruction is being done on purpose, *absolutely on purpose*. Estulin revealed that his Bilderberg insider told him that the slave masters on this planet *want* to collapse the economy, force people into the stack-and-pack cities of mega millions and then exterminate most of humanity." A few chapters back, we discussed this liberal-progressive pipe dream of 90-95% world depopulation at length: the only way to save the human race (they say) is to kill the vast majority of the humans. God, of course, would beg to differ, but He did predict (in so many words) that this very thing would happen—although He Himself wouldn't be the one bringing it about (and He didn't reveal a final death toll percentage). All He'd do is stop restraining the evil in the world, stop protecting the human race from itself for a little while.

"Estulin and I explored the methods that the super elite may use to exterminate 90% of all people on this planet. We both agreed that starvation is the most likely candidate. Starvation is a clean method of killing, it is quick and it would leave the planet in good shape for the global elite to establish their paradise on Earth...." Starvation as a geopolitical tool, as ghastly as it would be, could at least be expected to be easier to manage, focus, and contain than the method Dr. Eric R. Pianka proposed to get the job done: wiping out whole populations with the ebola virus. Starvation may not prove fast enough for the elites, however: the Bible (Revelation 20:4) also predicts beheadings on a massive scale for those who refuse to worship the beast.

Hodges concludes, "Let's make no mistake about it; the super elite are attempting to become more powerful than God." That's a pretty naïve thing to say: *anybody* can kill people; God alone creates and sustains life. There's a big difference. "The super elite control the human race in every imaginable possible way. Even the term, 'conspiracy theorist.' was invented by the global elite as a marginalizing tool to keep the public from believing in conspiracy theories that will enslave humanity. Absolutely nothing that happens in our world is an accident; it's all part of this grand plan.... My fellow human beings, *we do not have five years*. You sit idly by on the sidelines at the risk of not only your life, but the lives of your children and grandchildren, born or not yet born." I might add that the "grand plan" is nothing man conjured up—it has Satan's grubby fingerprints all over it. We struggle not against flesh and blood, but against evil spiritual forces (see Ephesians 6:12). And Hodges' "five more years" warning

may be a tad off, but not by much. By my watch, the Tribulation will begin in November, 2026, and run until October, 2033.

Once again, I would have to observe that although Mr. Hodges' alarm is well founded, his "solution" (such as it is) is naïve at best. Getting "off the sidelines"—getting personally involved in fighting these "super elite" puppet masters (whose strings are in turn being pulled by Satan Himself)—is a strategy doomed to failure, even if it "needs doing." Rallies, riots, and rebellion will do nothing to unseat those who are *really* in control. So Yahweh's prophets (Isaiah, Jeremiah, Zechariah, and John—did I miss anybody?) counsel us to "Come out of her [i.e., Babylon], my people, lest you share in her sins, and lest you receive of her plagues." (Revelation 18:4; cf. Jeremiah 51:45) How does one do that, when "Babylon" controls *everything* (to one extent or another) and is gaining more power by the day? Step one is to be "in Christ," made alive by the Holy Spirit. Step two is refusing to "play the game." That is, play by God's rules, not man's wisdom. Step three is to remain free from personal debt as much as humanly possible: the only thing we should owe people is our love.

## The Obsolescence of Cash

I found myself doing something the other day that I swore I'd never do. I used a credit card to buy my groceries. It wasn't that I was so broke I needed to borrow the money to buy food. But I, like everybody I know, have increasingly found more "traditional" methods of making everyday purchases less and less suitable. There was a time when I might have used cash, but for security reasons, I don't usually like to carry a whole lot of cash with me (and "a whole lot of cash" is what it takes to buy a cart full of groceries these days). For decades, writing checks was the preferred payment method. But it's a cumbersome and time consuming process, both in the store and later, when you have to balance your checking account.

A few years ago, I switched to using a debit card—combining the point-ofpurchase convenience of a credit card with the "direct-withdrawal honesty" of writing a check. But then it became apparent that my debit card wasn't terribly secure. If somebody stole its data, I'd be left holding the bag: there was no recourse with my bank if some cyber-thief cleaned out my bank account. So, since such risks *are* indemnified with a credit card, I've begun using one to buy groceries, writing one check a month and getting 3% cash back, too. Basically, I've been sucked into a system I don't particularly like (on philosophical grounds) because it's far more convenient and secure.

As far as it has gone, there is nothing "sinful" about shopping with a credit card instead of using cash (unless, of course, you're using it to buy things you don't need and can't pay for at the end of the month—writing yourself a bad loan, as it were). My philosophical trepidations about the system have more to do with where Bible prophecy suggests this trend is leading—ultimately, to the "mark of the beast," or at least to the technology that will be employed to implement it. If you'll recall, I discussed the issue at length in chapter 19 of *The End of the Beginning*, describing how cash enables a system of free and unencumbered trade (even if it's what makes street crime possible). In order to make the mark of the beast work, the Antichrist will logically have to discourage or eliminate the use of currency, since, "No one may buy or sell except one who has the mark or the name of the beast, or the number of his name." (Revelation 13:17) If cash is still in circulation, if it still has street value, then buying or selling could go on right under the government's nose, mark or no mark. But if all transactions had to be achieved electronically, the Antichrist's regime could authorize, implement, monitor, and if necessary *restrict* every financial transaction on earth. All it would take is the Internet, a working power grid, and the will to do it.

How close are we to making a cashless society a working reality? From the standpoint of having the necessary technology, we're very close. (Obviously, a one-world government and a supreme dictator with the political will and clout to pull it off would be the final pieces of the puzzle.) Every day now, new ideas are being put forth that would make the implementation of the Antichrist's cashless society that much more plausible. It appears certain that by 2030 (when—as the Biblical clues have led me to deduce—the Antichrist's three and a half year reign will commence) the world will be both technologically and psychologically ready.

It's not hard to see why banks want everybody to use electronic money instead of cash. Human nature being what it is, we have a hard time distinguishing our needs from our wants. If all of our day-to-day purchases are made with cash, we *see* the money being physically transferred, traded for what we're buying. So there's an incentive to consider carefully whether the purchase is prudent or frivolous, necessary or non-essential. We say to ourselves, "I may need that money for something else more important tomorrow—maybe I should just do without, today."

But with electronic money, especially credit cards, it is far easier to tell your prudent, frugal side to sit down and shut up. If we aren't *completely* dominated by our OCD tendencies, it is practically impossible for us to mentally track our credit card purchases to ensure that we don't go over budget—especially once we've gotten into the habit of using our plastic for little, everyday purchases: groceries, gas, or lunch. And then there's the "psychological pain" component, the "friction factor": it's just as easy to spend six *hundred* dollars with your credit card as it is six bucks.

Banks make money two different ways when we use credit cards. First (and most obviously) if you run a tab from one month over to the next—that is, if you don't completely pay off your balance at the end of each billing cycle—they will charge you interest, as per your contract. And don't look now, but the rates are *ugly*—18%, 20%, 22% or more, depending on one's credit risk. Once you begin rolling over a monthly balance, you're digging a hole that's very hard to climb out of. The average amount of household credit card debt in this country is \$7,123 (2013 statistic). But if the household is otherwise indebted (with home mortgages, student loans, etc.) the average credit card burden rises to *\$15,270*. That's over \$250 a month *in interest alone*. Add to that an average mortgage balance of \$149,925 and student loans averaging \$32,258, and you can begin to see the problem. If you're not earning a six-figure income, you're probably in trouble, though the median annual U.S. household income is only \$53,046.

The "sweet spot" for the banks is when you have so much credit card debt you'll never be able to pay it off, but *not* so much you won't be able to make the minimum payment, covering the interest and a tiny fraction of the principal. Like national debt, the idea is for the borrower to become enslaved to the lender, rolling over the balance but never paying off the loan—forever and ever, amen. Think about that the next time you use your credit card to buy coffee at Starbuck's.

The second way banks make money on credit purchases is by charging the retailers a small percentage fee for each credit transaction. That is why you'll see some gas stations offering a discount for using cash. Most stores just add the fee to everything they sell as part of the cost of doing business. (You pay for fraud and theft—called "shrinkage"—the same way: it's built into the price of everything you buy.) The use of electronic money makes everything about three percent more expensive than it would have been had credit cards not been part of the picture. But we love our conveniences, don't we? Rare is the retailer who doesn't accept credit cards these days. You can even use them at your local fast food joint.

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One of the things that's driving the obsolescence of cash is the growing realization that it's not actually "money" any more. We (or at least *I*) tend to think of "money" as gold or silver in a vault somewhere, which is *represented* by the paper currency we carry and trade. But increasingly, that's not the case at all. Money is actually little more than ones and zeros in some big computer, data that the powers that be have declared to be "worth" a certain amount. So money isn't

wealth anymore. It is *information*, or worse, the confidence we hold that this "information" is true and trustworthy.

Cash makes this crisis of confidence much easier to see. As long as our confidence holds, prices remain relatively steady. But if our trust in our nation's money erodes, prices edge upward in response to our collective doubts, and we find ourselves back in post-WWI Weimar Germany, where inflation got so severe it would take a wheelbarrow full of cash to buy a loaf of bread. But if "money" is merely information, its value is, to a certain extent, what "they" say it is. It's like playing football, only *without a real playing field*. The same rules apply, but electronic money makes it impossible to tell for sure if you've scored. You just sort of have to take the referee's word for it.

So if money equals information, cash is a dinosaur. But our other transactional tools look like they may be headed for extinction as well. Tom Olago, writing for *Prophecy News Watch*, says, "In the U.S, cash is becoming increasingly less relevant and valuable for transactions. Some stores are even entirely 'cashless' in America and around the world. Nearly 1-in-5 consumers do not carry any cash on them. In total, more than 60 percent of consumers carry \$20 or less in cash. Surprisingly, about 1-in-20 people say they don't use cash and refuse to go to places that accept only physical currency...."

He quotes a recent article published in *NationalJournal.com* by Matt Vasilogambros titled *Cash Is Dead. Are Credit Cards Next?* "According to a 2012 study by Javelin Strategy and Research, 27 percent of purchases in 2011 were made with cash. By 2017, the group expects that number to drop to 23 percent. So, yes, we're headed toward a cashless society." And that may include credit cards as well. "The future of money has arrived, and it's called 'Coin.' It looks like a credit card. It's the size of a credit card. It swipes in credit card machines. But it holds the information of up to eight of your debit, credit, rewards, or gift cards. And you can switch between cards by simply pressing a button."

As the nature of money itself shifts like sand beneath our feet, the technology that allows it to change hands is desperately looking for some solid ground upon which to stand. We're not quite there yet, I'm afraid. "The new product launched recently [Coin], promises to change the way consumers spend money in a secure and efficient way. The key technology is a Bluetooth signal. To load information from your different cards, just swipe them on a card reader into your Apple or Android phone and take a picture of the card. If you're too far from your card—like, say, you leave it at the restaurant—your phone gets a notification. And the Coin's battery lasts up to two years."

Somehow I'm unable to see anything revolutionary about this: "Coin" is still based on existing credit card realities. It merely packages them a bit differently. And that ads a layer of complexity that could prove fatal to the concept. The assumption is that everyone carries a smartphone with them wherever they go. That raises several other questions. Can you entirely rid the world of cash, checks, and credit cards in a world where some people (like me, for example) don't have smartphones? Cellular technology is a moving target, and connectivity isn't universal. How will tech obsolescence affect the usage of Coin? What happens when your phone gets lost, stolen, or broken? How can it be used where (or when) there is no electricity, Internet, or cell signal? How can people too young to have an established credit profile participate? All of these questions, and many more, would have to be solved if cash were to be abolished.

That being said, "The replacement of plastic cards by other more versatile forms of payment, such as those based on digital mobile technologies is clearly on the rise globally. Normally, you walk up to the shop counter to pay for your groceries and then just whip out your cash or credit card to pay for something. Nothing new there; however, getting out your smartphone instead to make the payment, is something which is far less globally prevalent, and another step forward to a completely cashless society that eliminates the need for both cash and credit cards." *That's* the point. Our civilization seems fixated on somehow eliminating cash, so we keep trying new ways to keep the trend moving forward. We don't even know why we want it. But Satan does.

The article discusses several other "promising" digital mobile payment technologies, and concludes, "It's interesting to see how almost every other day, some technological advance occurs that reduces the need for cash or credit cards, hastening the day when none of them will be required. A simple biochip on [or in] your body will contain all the cash and credit to your name that you need." That is, it has the potential to *identify you*, to the exclusion of every other person on the planet, thus authorizing a secure Internet link to your credit profile. "The Book of Revelation warns that one day everyone will be required to have a mark in their right hand or forehead in order to buy or sell. One can't help but wonder if today's technology is paving the way for this day sooner than one may think." No, Tom, not "sooner." From where I stand, it looks as if today's new monetary technologies will come to fruition just in time for them to be put to use by the Antichrist, precisely when the Bible hinted that they would: during the fourth decade of the twenty-first century. I just hate it when I'm right all the time.

One company pushing their own digital mobile payment technology (*PayAnywhere.com*) opines, "Over the last few decades, cash has gradually fallen out of favor amongst consumers at large. Currently, two-thirds of the public prefer to make payments via credit and debit cards. In the near future, another form of payment is set to further squeeze cash right out of the loop. The method is mobile payments, which allow customers to tap products via store-specific apps on iPhones, iPads and Androids. For customers, the benefits of going mobile are

innumerable in terms of both convenience and safety. For businesses, mobile payment solutions offer countless benefits. With purchasing apps and cardprocessing capabilities, retailers broaden their consumer appeal. Mobile solutions allow merchants to expedite sales and fund transfers with much greater efficiency, while keeping all monies safe from loss, theft or fire." Basically, they say, their mobile app trumps physical cash as the payment method of the future in three different ways: it's faster, safer, and more mobile.

Another of the new financial technologies worth mentioning is something called "Bitcoin." The *Bitcoin Wiki* describes it: "Bitcoin is an experimental, decentralized digital currency that enables instant payments to anyone, anywhere in the world. Bitcoin uses peer-to-peer technology to operate with no central authority: managing transactions and issuing money are carried out collectively by the network.... Bitcoin is one of the first successful implementations of a distributed crypto-currency.... Building upon the notion that money is any object, or any sort of record, accepted as payment for goods and services and repayment of debts in a given country or socio-economic context, Bitcoin is designed around the idea of using cryptography to control the creation and transfer of money, rather than relying on central authorities." The "reliance on central authorities," of course, is what makes schemes like Bitcoin attractive to people who have grown distrustful to government intrusion and overreach.

But as Scott Shay notes, "While Bitcoin, a private synthetic cyber currency, might seem like an antidote to [a scenario in which the government controls and monitors every financial transaction], it, too, requires connectivity, which can be subject to monitoring." Recent disclosures regarding the NSA's ubiquitous intrusion demonstrate the trend. "Further, the exchange of Bitcoin to the currency of the country in question can be regulated in ways that could limit or even end its utility. Testimony by regulators to the U.S. Senate on Nov. 18th that the government can deal with Bitcoin via the existing currency transaction surveillance laws and surveillance methods in place is a pretty good indication that U.S. agencies could also envelop Bitcoin via meta-data and behavioral analysis."

If I told you I fully understood how Bitcoin works, I'd be lying to you. But it does demonstrate the truth of one thing I said previously: if people *agree* something has value, it has value to them, whether it actually does or not. (In other words, *money is confidence*.) It seems the height of irony, then, that almost half a billion dollars' worth of this innovative "crypto-currency"—money invented by and for the online world—should have been stolen by cyber-thieves. *Wired.com* (March 3, 2014) reports: "From a distance, the world's largest bitcoin exchange [Mt. Gox] looked like a towering example of renegade entrepreneurism. But on the inside, according to some who were there, Mt. Gox was a messy

combination of poor management, neglect, and raw inexperience. Its collapse into bankruptcy last week—and the disappearance of \$460 million, apparently stolen by hackers, and another \$27.4 million missing from its bank accounts—came as little surprise to people who had knowledge of the Tokyo-based company's inner workings.... This would be the second time the exchange was hacked. In June 2011, attackers lifted the equivalent of \$8.75 million." Well, *somebody* thought Bitcoin was worth stealing. Does that make it real money?

Helping to put the whole cash obsolescence issue into perspective is Oliver Burkeman, writing for *The Guardian*. "Silicon Valley is getting all excited again, in its Silicon Valleyish way, about the future of how we pay for things. The specific cause of excitement, this week, is the news that Richard Branson has made an investment in Clinkle, a mysterious startup that promises to revolutionize payments in some unspecified way, possibly by letting people send money from smartphone to smartphone using sound.... But predictions about the coming End of Cash have been around for years, growing louder since the arrival of contactless payment, of Square, and of Bitcoin. The other day, research from Tufts University gave the cause a new boost: cash, it revealed, costs US consumers, businesses and governments more than \$200 billion annually in everything from ATM fees and theft to lost tax revenue. Oh, and it helps spread disease. Could it be time, wondered Tim Fernholz at Quartz, to give up on cash entirely?

"It's an intriguing question. But it has a simple answer: *no!* Leave aside for now the fantastical prospect of an actual, society-wide end of cash, with all the vast implications for economic policy, on the unbanked, *etcetera*, that that would entail. Just on a personal level, as we race headlong into the era of 'frictionless spending'—in which waving goodbye to another \$10 is as simple as a single click on an iPad or Kindle—there's a strong argument for starting to use cash much more.

"There's plenty of psychological research to show that when we spend using physical notes and coins, we spend more sensibly. Of all forms of payment, cash is the most 'transparent'—the one that connects us most directly to the fact that we're parting with our money. That's also why, as the behavioral economist Dan Ariely has argued, cashlessness seems to be associated with increased dishonesty: it's easier to cut ethical corners involving money, while continuing to think of yourself as an honest person, when you're psychologically distanced from the money involved. 'We are moving to a situation which allows people to rationalize dishonesty to a much, much higher degree,' Ariely told *Wired Magazine* last year.

"The bigger point here is that 'frictionlessness,' that glorious promise of our cloud-based, disruptogasmic future, is a bad thing at least as often as it's a good one. Just as 'frictionless sharing' on Facebook is how you unwittingly come to inform friends you've been reading all the latest naked celebrity news, frictionless spending is why my Kindle is loaded with quarter-read books on topics that interested me for 30 minutes once. Friction keeps you frugal. God-bothering personal finance expert Dave Ramsey goes so far as to suggest that you count cash into envelopes for each part of your household budget every month; that way you'll really feel it whenever you spend. (I tried the envelopes system, with partial success, last year.)" I agree, Oliver. My wife and I find Dave Ramsey's "envelope system" especially useful for expenses we know are coming—like personal property taxes, car insurance, or tuition—but which aren't part of the regular monthly budget. Sometimes, it *ought to* hurt a little when you spend your hard-earned money. Like the man said, "Friction keeps you frugal."

The caution is echoed by Scott A. Shay (quoted briefly above), chairman of Signature Bank, in an article for CNBC (December 12, 2013), entitled Cashless Society: A Huge Threat to Our Freedom. Shay writes, "Econgularity, shorthand for economic singularity, is an ugly word I created to describe an unfortunate approaching moment in time when our current technological snooping prowess, the ease of big data manipulation and our sprint to a cashless economy will converge. This will happen in such a way as to permit governments to exercise incredibly powerful control over all human behavior. While this may sound like a paranoid doomsday scenario to some, as a real world finance professional, I believe that this scenario is not only eminently possible, but most of the technology is already available—albeit not yet fully marshaled—to frighteningly make it reality." Gee, it's as if Mr. Shay has been reading up on Bible prophecy. The capability he describes is precisely the sort of thing the Antichrist will need in order to pull off his "mark of the beast" scam. As you'll recall, that's the system through which the Antichrist "causes all, both small and great, rich and poor, free and slave, to receive a mark on their right hand or on their foreheads, and that no one may buy or sell except one who has the mark or the name of the beast, or the number of his name." (Revelation 13:16-17) By my timeline, that will become a worldwide reality in the spring of 2030. Is that "paranoid" enough for you?

"Technological advances have led to the creation of algorithms that can instantaneously review financial transactions, determining the nature, location and even the appropriateness of a purchase decision. These have been freely used by credit- and debit-card companies. Cardholders already encounter this technology when they receive fraud alerts after a transaction that looks out of kilter with the particular consumer's normal purchasing patterns. The technologies can thus serve to protect consumers." I've been on the receiving end of one of these "protective" algorithms. I once caravanned with my son to his college in a neighboring state, using my only credit card to refuel both our cars several times. By the time I was halfway home, my credit card company had cancelled my card, figuring it had "obviously" been stolen. Good thing I had some cash with me. "That said, they have already been used to control consumer behavior. In 2010, Visa and MasterCard, bowed to government pressure—*not even federal or state law*—and banned all online-betting payments from their systems. This made it virtually impossible for these gambling sites to continue operating regardless of their jurisdiction or legality." And in 2014, Chase Bank and Wells Fargo began systematically closing the bank accounts of "adult film industry" (a.k.a. pornography) actors, in effect punishing them for immoral behavior even though what they're doing is perfectly legal. (Well, not *perfectly*, but you know what I mean.) "It is not too far-fetched to wonder if the day might come when the health records of an overweight individual would lead to a situation in which they find that any sugary drink purchase they make through a credit or debit card is declined. Sounds far-fetched but maybe not so.

"You might think then that the person can always pay cash and remain outside the purview of these technologies. This may be the case for the moment, but we are well on the road to becoming a cashless society. According to a MasterCard study, 80 percent of U.S. consumer transactions are electronic. In Sweden, one observer estimates that only 3 percent of transactions are made with currency. In fact, the decline in cash use has become so pronounced in Sweden that homeless beggars have been given card readers by Situation Stockholm to sell freely distributed newspapers and to receive alms, since potential donors no longer carry cash. Governments and central banks are also subtle supporters of a cashless society as there are indeed costs to producing currency and coins. Monetary policy could also be much more efficiently executed without currency circulating, since it would then be easy to implement negative interest-rate policies.

"But there is also a sinister risk to a cashless society. This point comes when a society goes cashless and the potential for econgularity is at its highest. A singularity is defined as the point in which technological advancement will 'radically change human civilization and perhaps even human nature itself."" I don't know about that. Human nature has always been fatally flawed: **"The heart is deceitful above all things, and desperately wicked; who can know it?"** (Jeremiah 17:9) But it *would* have the potential to bring out the worst in us. "It is impossible to know if this will actually happen, but a cashless society would certainly give governments unprecedented access to information and power over citizens. Currently, we have little evidence to indicate that governments will refrain from using this power. On the contrary, the U.S. government is already using its snooping prowess and big-data manipulation in some frightening ways...." And again, I would add that Mr. Shay's dreaded econgularity is implied in the Bible's description of the Antichrist's mark of the beast.

"If current government trends [like NSA snooping, civil forfeitures, and heavy handed regulations and compliance hurdles] continue, a cashless economy could thus very well lead to an econgularity. Imagine a future in which soon, a government staff member could *suspect* an individual of some misconduct, or perhaps deem that person's politics or speech [or, I might add, his faith] unacceptable. It would take just a few keystrokes to order all financial institutions to decline any withdrawal or payment from that individual and to transfer any deposits or payments of that person to the government, or at least freeze any access to funds. Perhaps this would need to be reviewed by a secret court that would approve 99.7 percent of all requests, but would provide a veneer of due process [circumnavigating those pesky and inconvenient Fourth Amendment issues]. It is fair to think that the targeted individual might starve to death. This could be insured by cutting off access to the payment system of anyone suspected of helping the targeted individual."

It's worth repeating: this nightmare scenario is *precisely* what is predicted in scripture: "No one may buy or sell except one who has the mark or the name of the beast, or the number of his name." (Revelation 13:17) "It is by no means certain that such a dystopian outcome will occur in a cashless society." Actually, Mr. Shay, it *is* certain, for God's word cannot fail. "It could be that certain countries such as Sweden can make the leap without any adverse consequences. But my fear is that some governments will find it irresistible to take much greater control of the everyday behaviors of their citizens simply because they can." This will become a *fait accompli* when there is only one government left on earth: the Antichrist's *novus ordo seclorum*, prophesied in scripture.

The trend toward phasing out cash is only part of the picture, of course—but it *is* a factor, an indicator, that the Last Days can't be too far off. The fourth decade of the twenty-first century is, once again, in our sights as the likely timeframe for one more puzzle piece to fall into place. You can't say you weren't warned.

## The Cost of Warfare

We've come a long way from Cain killing Abel with a rock or stick. We can now kill our brothers by pushing a button on a computer console half a world away. But we're paying quite a heavy price for the ability to kill somebody without suffering the emotional trauma of seeing their blood spattered all over us. War (I really don't know why they insist on calling it "defense") now consumes a huge percentage of the budgets of many nations, including our own.

The technology of warfare has changed a great deal since we humans began hating each other, but the *reasons* we go to war are as constant as the North Star: one or more parties want something another party is not willing to give them, so they feel justified in taking it by force. As I see it, there are four basic types of war. That is, nations who go to war fall into one of these four categories. (Their adversaries, of course, are as often as not in a separate group.)

(1) Most often, the aggressor is acting out of simple arrogant covetousness (as in Alexander conquering Egypt and Persia, Muhammad subjugating the Arabian peninsula, Hitler taking Czechoslovakia and Poland, Hirohito invading China and Southeast Asia, Hussein overrunning Kuwait, or Putin (like Stalin before him) occupying Georgia and the Ukraine). The objective is often land for an expanding population (something Hitler called *lebensraum*—"living space") or control over the people already living there. Or it could be the natural resources, fertile farms, or strategic location of the place.

This "covetous aggressor war" is what James had described: "What is causing the quarrels and fights among you? Don't they come from the evil desires at war within you? You want what you don't have, so you scheme and kill to get it. You are jealous of what others have, but you can't get it, so you fight and wage war to take it away from them." (James 4:1-2 NLT) These "wars" could be as small as one man mugging another in the park, or as large as the future war described in the prophecy of the sixth trumpet (Revelation 9:13-21), in which China (the colors of the flag identify it) will run roughshod over the entire Far East—apparently with the Antichrist's blessing and support—killing upwards of two billion people in the process.

(2) Next is the "righteous war." Sometimes the warrior nation is acting out of self-defense—reacting to oppression or threats from others. America in 1775 and Israel in 1948, 1967, and 1973 (etc.) stand out as examples. In these cases, "what they want" might consist of freedom, security, or (ironically enough) the simple right to live in peace (or in Israel's case, the right to exist *at all*). Sometimes people just get tired of being robbed blind by their own governments. Revolutions (like France's in 1789 or Russia's in 1917) are often fomented to throw off the shackles of oppressive overlords. America's revolution was an anomaly, by the way: they seldom end as well as ours did. Another permutation of the self-defense war: America took the fight to the Japanese in January, 1942, but only because Japan attacked us in December, 1941. (Germany unilaterally declared war on America immediately after the Japanese attack, sparing us all the hand-wringing and moral indecision to which we would have normally subjected ourselves in that situation. Remember, the war had already been raging in Europe since 1939, and in Asia since 1937.)

(3) Some wars are "borrowed." That is, nations go to war simply because their allies have been attacked or invaded by a third-party aggressor. The classic example is World War I, in which an anarchist's bullet began toppling a series of political dominoes (related only by a web of mutual assistance treaties) until all of Europe, and eventually the Middle East, North Africa, and America, were embroiled in a war in which they stood to gain practically nothing. The "offended

nation," Austria-Hungary, could simply have hanged Gavrilo Princip, but instead they used his rash and futile gesture, the assassination of Archduke Ferdinand, as a pretext to invade Princip's home nation, Serbia, and we were off to the races. Next thing we knew, 37 million people were dead, and \$186 billon had been squandered for no discernable reason.

In a similar vein, Iraqi dictator Saddam Hussein, who was already swimming in oil, decided to invade neighboring oil-rich Kuwait in 1990, because for guys like that, there is no such thing as "enough." (As Muhammad was fond of saying, "Oh, the booty!") For his part, he was fighting as a covetous aggressor. But because Kuwait was considered a U.S. ally, George H.W. Bush put together a coalition of 34 nations (with several others contributing funds but no troops) who proceeded to spend one hundred hours (after setting up the battlefield for months) and \$61 billion throwing the Iraqis out of Kuwait.

Ironically, the U.S. and Britain had *supported* Hussein's rise to power and his aggression against neighboring Iran (whom we hated because they had thrown out their legitimate tyrant (excuse me: ruler) in 1979, set up an Islamic theocracy of sorts, and kidnapped 52 American diplomatic personnel later that year—holding them hostage for 444 days). In other words, we (as usual) got in trouble by supporting the lesser of two evils—*knowing* they were evil at the outset. We had a similar checkered history with Osama Bin Laden, whose Muslim mujahedeen needed American support to oust the Soviets from Afghanistan. The enemy of one's enemy isn't necessarily a friend.

(4) The last category of war is what I'd call "wars of paranoia." The enemy is seen as someone who *might* do to you (or someone friendly to you) something bad, militarily, economically, or diplomatically. The classic 20<sup>th</sup> century example, I suppose, would be the war in Vietnam, fought (on our part) because we were afraid the "dominoes" would continue to fall to the Communists, one after another, until the whole world was under the control of the Red Menace. So America (with a few regional allies) sided with South Vietnam (a corrupt regime in its own right) in a vain effort to quell the advance of the Communist North, fighting from 1956 until 1975. When it was all over, up to 3.8 million people were dead (military and civilians on both sides, including the related conflicts in Laos and Cambodia), another two million were injured in battle, and \$111 billion dollars had been wasted.

These needn't be "shooting wars," like Vietnam or WWII. The "Cold War" that seethed between America and the Soviets between the end of World War II and the economic collapse of the U.S.S.R. in 1989 was driven not by overt acts of military aggression (at least not by the main protagonists) but by the fear of what they *might* do. One factor fueling the mutual paranoia was that both sides ended up with huge stockpiles of thermonuclear weapons—enough to wipe out all life

on our little planet a hundred times over. The only thing keeping *both* sides from "pushing the button" was a concept called MAD—Mutually Assured Destruction: the sure knowledge that nuclear aggression would be met with retaliation in kind. *No one* could win at this game, so (since both sides were sane and self-interested) no one played.

That being said, it is my sad duty to report that those happy days of sanity and self-restraint are coming to an end. While Communists and capitalists alike have reasons for wanting to live and prosper, Muslims don't. Their idea of success (according to their scriptures, anyway) is to die fighting in Allah's cause. If death is a good thing, and if you've been taught to despise Jews, Christians, and other "infidels" (including Muslims of other "denominations") since you were an infant, then nuking your neighbor is merely a question of having the requisite technology at your disposal. If your target retaliates, he'll merely be making you a martyr for Islam—giving you seventy-two virgins and rivers of wine (or so the imams have assured you). It's a win-win situation. It's pretty hard to defend oneself against hatred so intense and insane that death itself is no deterrent.

Until now, conscience and the restraining influence of the Holy Spirit in the world has been enough to spare the world from nuclear holocaust. But logic and scripture both tell us this state of affairs won't last forever. Once the rapture is a *fait accompli* (that is, once the Holy Spirit is no longer in evidence among men), it is only a matter of time before paranoia gives way to overt expressions of hatred on a global basis. The first trumpet judgment (Revelation 8:7) describes, in first-century language, nuclear war being waged over a third of the earth's surface. But even now (as promised) wars and rumors of war are everyday occurrences.

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How much does it cost to kill a man in battle? Or, to put it more cynically, how much is it worth to you to see your enemy dead? When Cain killed Abel, it didn't cost him a thing. A weapon of opportunity—a rock or a stick—and a bad attitude was all it took to get the job done. But as populations grew (and grew more belligerent) kings discovered that it *cost them something* to field standing armies. They had to be paid, fed, armed, and otherwise equipped, or they'd be useless in battle. Navies needed ships. Archers needed arrows. Infantry needed swords, spears, and shields. Cavalry needed horses and chariots. A king could only tax his own base so much before he had a revolt on his hands: there had to be a pot of gold at the end of the rainbow of military aggression, at least in theory.

It began with booty, pure and simple: take what you could and run away. But as the concept developed, kings discovered they could enslave whole populations where they lived, seizing a sizeable chunk of their crops and herds year after year, exacting tribute (something we now call taxes), which could then be used to maintain the army in the field indefinitely, keeping the conquered populace under submission. It was a self-perpetuating money machine—that is, until somebody stronger than you showed up and stole from you what you had previously stolen, something that *always* happened, eventually.

Every time a piece of territory changed hands, the "transfer" cost something to achieve. Under normal circumstances, war was like a narcotic: ever larger forces had to be marshalled to achieve ever smaller gains. Occasionally, however, the adversary had grown so top heavy, ponderous, and corrupt, it could be toppled through stealth and cunning instead of brute force. Such was the victory of the Medes and Persians over Babylon on the night of October 12, 539 B.C. (see Daniel 5:30). And advanced battle tactics (such as Alexander the Great's) also allowed some armies to defeat forces much larger than themselves. The sizes of ancient armies varied-Ramses II of Egypt, 1300 B.C.: 100,000 men; the Assyrians, 8<sup>th</sup> century B.C., 150,000+; Darius the Mede, 5<sup>th</sup> century B.C., 200,000 men; the Persians under Xerxes, 300,000 troops; Alexander the Great; a mere 60,000; Rome at their height, 350,000. But one fact remained constant: these standing armies were expensive to maintain. After the fall of Rome in the 5<sup>th</sup> century, few European nations could afford to field large armies for very long-a condition that generally persisted until the 19<sup>th</sup> century, when Napoleon's visions of grandeur brought large-scale conflict back into vogue.

What drove these trends? At the risk of oversimplifying things, one factor in the ancient world (until Rome's heyday) was that kings and emperors liked to fancy themselves gods, who could take what they wanted and kill who they wished, costs and conscience be damned (though *somebody* had to pay the piper—preferably the victim). Through the dark ages, middle ages, renaissance, and "age of enlightenment," men, though still evil and covetous, weren't quite *that* arrogant anymore. So what made war big business once again?

It happened about a century before Napoleon's time. It was the advent of modern national debt in 1694. With William of Orange borrowing millions of pounds that had been conjured up out of thin air, debt, and wishful thinking by the new royal counterfeiter, the Bank of England—the cost of waging war became (for the kings, anyway) less direct, less painful. As it might be phrased in the context of cash vs. credit, paying for war lost some of its "friction." When the potential for this legalized counterfeiting was realized, politicians discovered that they didn't need real wealth to beat up on their neighbors anymore. All they needed to let their hatred run amok was a central bank.

American national debt statistics demonstrate the principle. At the close of the Revolutionary War (1790) we had a national debt of \$71,060,508. It floated in

this general neighborhood until the War of 1812, when it suddenly shot up to \$127,334,933. A few decades of fiscal restraint (and no wars) brought the number steadily downward, until Andrew Jackson's sound financial policies virtually wiped out the debt altogether—taking it down to \$33,733 (in 1833). By 1846, the national debt had crept back up to \$15,550,202, but in the wake of the Mexican War it leaped almost fourfold to \$63,061,859 in 1849.

In 1860 (the year before the Civil War broke out) the debt was still holding relatively steady at \$64,842,287. But by war's end (1866) it had risen to an astonishing *forty-two times* that level—to \$2,773,236,173. Afterward, we kept it in the two-to-three billion dollar range for half a century: in 1914 (the year World War I began in Europe) the U.S. owed a debt of \$2,912,499,269. But by the time the smoke had cleared (1919) we were in debt to the tune of \$27,390,970,113—another nine-fold jump. Again, we floated in that neighborhood for a few decades. The year the Second World War began in Europe (1938), we owed \$37,164,740,315, but by the year after the war ended (1946) we were in hock to the tune of \$269,422,099,173—"only" a seven-fold increase this time. Are you beginning to see the pattern here? Wars precipitate huge increases in the national debt, and *their costs are never paid off*.

After the Korean War (1949-53) we were almost always at war somewhere, and if not, we were preparing for it, developing insane doomsday weapons, better aircraft, and a network of military bases all over the world. So the era of the Cold War with the Soviet Union and the interminable Vietnam conflict saw a steady rise in national debt numbers, though no pronounced spikes. In 1960 we owed \$286,331,000,000.... 1970: \$370,919,000,000.... 1980: \$907,701,000,000. We broke the trillion-dollar barrier in 1982. By 1990 our debt was \$3,233,313,000,000.... in 2000, it was \$5,674,178,000,000.

Then Barack H. Obama took office in 2009 and promptly proved everybody before him to be rank amateurs in the wasteful spending department. As of this writing (March, 2014) America's national debt exceeds *\$17.5 trillion dollars*. That is, it's up 6.666 trillion dollars on his watch (as of last month). Interesting number. You used to be get something really *nice* for that amount of money, but we've got nothing to show for our national profligacy of the past few decades, just waste corruption, and a couple of insane and unpopular wars. At the same time, ironically enough, our nation's military preparedness has sunk to the lowest level in the past half century.

So, back to our original question. How much does it cost to kill a man in battle? And how has the picture changed? What trends are developing? Reliable statistics are hard to come by, but perhaps we can demonstrate the worldwide trend in war spending by tracking conflicts in which America was involved, even though it's hard to ensure we're "comparing apples to apples." Let us begin with the American Revolutionary War, fought between 1775 and 1783.

First, the casualties: American military deaths in battle numbered about 8,000, out of 84,500 Continental regulars, militia, and sailors. No reliable statistics exist for the number of fatal casualties among British regulars, of whom about 56,000 served in the war against the American Colonies. Total casualties (killed and wounded) numbered about 20,000. If the percentages were the same as for the Americans, we can make a rough educated guess of about 5,000 British Regulars killed. In addition, about 1,240 British sailors were killed in battle, out of 19,740 assigned to the conflict, and approximately 1,200 German Hessian mercenaries were killed in action, out of 24,000 foreign troops working as mercenaries for the British. (Note that I'm counting only combatants killed in battle, not the injured or those brought down by disease—whose numbers have always tended to be far higher. Nor am I counting civilian casualties—collateral damage. I'm only trying to determine how much we spend purposefully killing our fellow man.) So about 15,440 combatants total, on both sides, lost their lives in the American Revolutionary War.

And the money? Bear in mind that "dollars" at this point in history were actually *Spanish* dollars, to which the value of colonial currency was tied after the colonies severed their ties to British pounds sterling. For example, Virginia made the jump to Spanish dollars in 1776. The exchange rate in 1774 was £0.225 sterling per dollar, or, inversely, \$4.44 per one pound sterling. The British spent about £80 million fighting the war—the equivalent of \$355 million. The United States spent \$37 million at the national level plus \$114 million by the various states, mostly borrowed from the Netherlands and the French (whose hatred for the English outweighed the fact that they couldn't remotely afford such expenditure). Money was also raised by circulating "Continental Dollars," whose value (since they were backed by little but hope and promise) quickly fell to almost nothing (giving rise to the phrase, "not worth a Continental," meaning "worthless.") So by these statistics, \$506 million was spent to kill 15,440 people, meaning each corpse cost \$32,772—in 1780s *borrowed* dollars, not adjusted for inflation.

Let's skip ahead to the American Civil War (1861-1865). It was America's bloodiest conflict, inflicting 1,100,000 casualties, including almost 680,000 deaths. But again restricting the statistics to just the numbers killed or mortally wounded in battle, we find that the North suffered 110,100 killed (out of a total of 389,753 dead, which reveals the extent of the carnage due to disease, infection, and starvation). The South, meanwhile, lost 94,000 in battle (out of 289,000 total dead). Cost estimates range from \$2.3 billion to \$3.1 billion for the North (so let's split the difference and call it \$2.7 billion), and about \$1 billion was spent by the

South. So it cost 3.7 billion to kill 204,100 soldiers. (Call the other 475,000 dead combatants a free bonus.) That makes the cost per Civil War corpse \$18,128.

Before you begin celebrating the reduction in cost per corpse, bear in mind that the Civil War armies vastly outnumbered the Revolutionary War forces. The Union at its height (at the end of the war) numbered 1,000,516 men, while the Confederate armies, at their peak before the Battle of Gettysburg, numbered over 300,000. Not only had the lethality of the weapons of war far outstripped the battle tactics, the grim reaper had a "target-rich environment" in which to harvest souls. There are certain "economies" to be had when soldiers are little more than cannon fodder.

How about World War I (1914-1918)? Again, the numbers are vastly greater than in any previous modern war, and again, the old battle tactics proved no match for the new and "improved" weapons—especially machine guns, tanks, and poison gas. These stats (from *StatisticBrain.com*) cover all of the involved countries. Of the 65 million men mobilized for war, the casualty rate was a staggering 57%. The number of combatants dead in battle, missing in action, or POWs who never returned, adds up to 17,420,450. The cost of the war totaled \$186.3 billion, or \$10,695 per corpse (again, not counting civilians, deaths from disease, etc.).

The statistics take a massive jump when we explore World War II (1939-1945). One figure that stood out to me was the dichotomy between military and civilian deaths when comparing WWI to WWII: In the First World War, 95% of the dead were military combatants, but during the Second World War, the percentage had shifted dramatically: only about forty percent of the dead were military personnel; the remainder were civilians. 110 million people were mobilized for war. The death toll for all populations exceeded 55 million souls. The number of military deaths totaled 23,620,100 (from twenty-four nations, although over sixty nations were involved). *Ask.com* reports that "The total cost of WW2 was upwards of \$1.6 trillion, though many financial records for 1939 are missing, incomplete, misleading or contradictory. National spending was as follows; USA \$350 billion, UK \$150 billion, France \$100 billion, USSR \$200 billion, Germany \$300 billion, Italy \$50 billion, Japan \$100 billion and all other participants \$350 billion." So the cost per corpse during World War II was about \$67,740.

Accurate totals for the Vietnam War (1965-1975) are hard to come by, because nobody seems to know how much Communist North spent on the war, and estimates for what it cost America are all over the map. This much we know: we lost over 58,000 dead, and the Army of the Republic of Vietnam lost about 200,000 men during the war, in addition to about two million civilians. Most estimates place Communist battle losses at about a million. Basing our cost-percorpse data strictly on the American side of the equation, *TheVietnamWar.info* reports: "In the entire war, the United States spent about \$140 billion (worth \$950 billion in 2011 dollars) including \$111 billion war cost, and \$25 billion economic and military aid to Saigon regime. At that rate, the United States spent approximately \$140,000 for an enemy killed."

Vietnam held the record for the longest running war in which America was an active participant—*until* the 9/11/2001 Islamic attack on the World Trade Center and the Pentagon. Hearing that the attack's instigator, Osama bin Laden, was using Afghanistan as his base of operations, we immediately launched into what seemed at the time to be a "righteous war" against the Taliban—the oppressive Islamic fundamentalists who were keeping the place cloistered in the seventh century while giving shelter to America's nemesis, bin Laden's al-Qaeda. But as the Russians had learned (and the British before them), Afghanistan is where superpowers go to die. I never really understood the "Let's-go-punish-Afghanistan" ploy: most of the 9/11 terrorists, including bin Laden, were Saudis, not Afghans. The war is still raging as I write these words, though Osama bin Laden is long dead (ironically, having been caught not in Afghanistan, but in Pakistan), and we have no idea why we're there anymore, other than that the Taliban still need killing. I'm still not sure why that should be our job: as evil as they are, they *never* posed a clear and present danger to the U.S.

Notwithstanding the fact that a dollar isn't worth much anymore, we sure are spending a lot of them to prosecute this pointless and unwinnable war. You'll note that with the exception of the relatively expensive Revolutionary War, the costs per corpse in America's wars have been steadily rising. But the value of the dollar has been steadily shrinking, too, which in reality means that the cost of hatred has remained far more level than it looks. But when we examine the cost of the war in Afghanistan, we find ourselves on another planet entirely—even if we factor in the plummeting value of a dollar.

I realize the totals (in terms of both costs and human life) are a moving target, but the statistics for the Afghan War, if not entirely consistent, are uniformly alarming. *Wikipedia* reports, "The cost of the war reportedly was a major factor as U.S. officials considered drawing down troops in 2011. A March 2011 Congressional Research Service report noted, (1) following the Afghanistan surge announcement in 2009, Defense Department spending on Afghanistan increased by 50%, going from \$4.4 billion to \$6.7 billion *a month*. During that time, troop strength increased from 44,000 to 84,000, and was expected to be at 102,000 for fiscal year 2011. (2) The total cost from inception to the fiscal year 2011 was expected to be \$468 billion. The estimate for the cost of deploying one U.S. soldier is Afghanistan is over US \$1 million a year."

*GlobalResearch.ca* reports that "The Iraq and Afghanistan conflicts, taken together, will be the most expensive wars in US history—totaling somewhere between \$4 trillion and \$6 trillion (the equivalent of \$75,000 for every American household). This includes long-term medical care and disability compensation for service members, veterans and families, military replenishment and social and economic costs. The largest portion of that bill is yet to be paid."

This war is a NATO effort, so although the Americans (who assume we have the biggest axe to grind) are the biggest contributor to the war, we're not alone. "As of 2013, tens of thousands of people had been killed in the war. Over 4,000 ISAF (the 'International Security Assistance Force,' established by the United Nations Security Council, including the U.S., the U.K., and nine other nations) soldiers and civilian contractors as well as over 10,000 Afghan National Security Forces had been killed."—*Wikipedia*. To put things in perspective, the population of Afghanistan is just north of 31 million people.

And how many Taliban or al-Qaeda combatants have we managed to kill in Afghanistan? Caroline Wyatt, writing for the *BBC*, reports, "NATO says that it does not 'keep body-counts' of insurgents killed by coalition forces because it 'does not regard body-count as a metric of progress,' and it believes the number of insurgent deaths or injuries 'does not equal success' in a counter-insurgency campaign the main stated aim of which is now to protect the Afghan people." That sounds vaguely like the guy who works the counter at McDonald's defensively intoning "I don't measure my success by how much I earn." It's a tacit admission of utter failure, even if it's true.

But anybody who has ever studied Islam should know that the Afghan war is a hopeless, pointless task. Even if you were to root out and kill *every* Taliban or al-Qaeda "insurgent" in the entire country, Afghanistan would still be an Islamic nation. In other words, you wouldn't have managed to save or protect them from their core predicament. Every time a young Afghan male listened to his imam or opened up a Qur'an and "got religion," you'd be right back where you started. Imposing democracy on Afghanistan (or any other Islamic nation, for that matter) is pointless, for every candidate on the ballot would be a Muslim—dedicated (by definition) to the submission of his people to a false god who was the invention of a "prophet" whose only goal (as revealed by his own words) was to acquire power, sex, and money. The *only* thing that can rescue and transform a country like Afghanistan is Christ—but you can't impose belief in Yahweh's Messiah upon a people by waging war on them. It doesn't work that way.

But back to our question: what is the cost per corpse for this interminable war? Former U.S. Air Force Captain Matthew J. Nasuti, writing for *KabulPress.org* (September 30, 2010), entitled an article, "Killing each Taliban soldier costs \$50 Million. Killing twenty Taliban costs \$1 billion. Killing *all* the Taliban would cost \$1.7 trillion." Something tells me the age of cannon-fodder military tactics is long gone, and good riddance. But with our newfound "kinder and gentler" more focused style of precision warfare, financial sanity has disappeared along with indiscriminate death.

Nasuti says, "The Pentagon will not tell the public what it costs to locate, target and kill a single Taliban soldier because the price-tag is so scandalously high that it makes the Taliban appear to be Super-Soldiers. As set out in this article, the estimated cost to kill each Taliban is as high as \$100 million, with a conservative estimate being \$50 million. A public discussion should be taking place in the United States regarding whether the Taliban have become too expensive an enemy to defeat.

"Each month the Pentagon generates a ream of dubious statistics designed to create the illusion of progress in Afghanistan. In response, this author decided to compile his own statistics. As the goal of any war is to kill the enemy [NATO spin artists notwithstanding], the idea was to calculate what it actually costs to kill just one of the enemy. The obstacles encountered in generating such a statistic are formidable. The problem is that the Pentagon continues to illegally classify all negative war news and embarrassing information. Regardless, some information has been collected from independent sources. Here is what we know in summary and round numbers:

"1. Taliban field strength: 35,000 troops [that is, roughly one tenth of one percent of the Afghan population]

"2. Taliban killed per year by coalition forces: 2,000 (best available information) [Note: Some sources report body counts four or five times that, but more recently than the article's 2010 dateline. Note also that the war has been going on for well over a decade, and yet Taliban recruitment manages to keep pace with casualties.]

"3. Pentagon direct costs for Afghan War for 2010: \$100 billion

"4. Pentagon indirect Costs for Afghan War for 2010: \$100 billion

"Using the fact that 2,000 Taliban are being killed each year and that the Pentagon spends \$200 billion per year on the war in Afghanistan, one simply has to divide one number into the other. That calculation reveals that \$100 million is being spent to kill each Taliban soldier [as of 2010]. In order to be conservative, the author decided to double the number of Taliban being killed each year by U.S. and NATO forces (although the likelihood of such being true is unlikely). This reduces the cost to kill each Taliban to \$50 million. The final number is outrageously high regardless of how one calculates it." I would note that Captain Nasuti's point #4, indirect costs, were not included in my statistics for previous wars. So if we wish to compare "apples to apples," we may want to eliminate that portion of the cost factor, bringing the *direct* cost of killing a Taliban soldier down to a "mere" \$50 million—and with his "fudge factor" reapplied, down to "only" \$25 million for each corpse. Even adjusting for inflation, that number is totally out of whack when compared to previous conflicts.

Nasuti continues: "To put this information another way, using the conservative estimate of \$50 million to kill each Taliban: it costs the American taxpayers \$1 billion to kill 20 Taliban. As the U.S. military estimates there to be 35,000 hard-core Taliban and assuming that no reinforcements and replacements will arrive from Pakistan and Iran, just killing the existing Taliban would cost \$1.75 trillion. The reason for these exorbitant costs is that United States has the world's most mechanized, computerized, weaponized and synchronized military, not to mention the most pampered (at least at Forward Operating Bases). An estimated 150,000 civilian contractors support, protect, feed and cater to the American personnel in Afghanistan, which is an astonishing number." Yes, you read that correctly: the number of American *civilian* support personnel for our forces is well over *four times* that of the total Taliban military force. "The Americans enjoy such perks and distinctions in part because no other country is willing to pay (waste) so much money on their military.

"The ponderous American war machine is a logistics nightmare and a maintenance train wreck. It is also part myth. This author served at a senior level within the U.S. Air Force. Air Force "smart" bombs are no way near as consistently accurate as the Pentagon boasts; Army mortars remain inaccurate; even standard American field rifles are frequently outmatched by Taliban weapons, which have a longer range. The American public would pale if it actually learned the full story about the poor quality of the weapons and equipment that are being purchased with its tax dollars. The Taliban's best ally within the United States may be the Pentagon, whose contempt for fiscal responsibility and accountability may force a premature U.S. withdrawal from Afghanistan as the Americans cannot continue to fund these Pentagon excesses."

A *premature* withdrawal? I'm as patriotic as the next guy, but if we had listened to our heads instead of our hearts (or some other organ), we never would have invaded Afghanistan in the first place. The Afghans were not our enemies. The Taliban *per se* had never attacked us. Our *real* enemy was Islam itself: Osama bin Laden made this perfectly clear. He was merely following Muhammad's example and command—as *all* Muslims are required by Sharia law to do: enslave and tax the infidels if you can; kill them if you get the chance. Islam, in the end, isn't a religion at all: it's a violent and covetous political doctrine designed to subjugate the entire earth. It's so much like Hitler's Nazism it's scary. But it was deemed "politically incorrect" to protect ourselves against Islam. So we threw away billions of dollars and thousands of precious lives dealing with symptoms—the Taliban, al-Qaeda, or "terror"—not the disease that caused them. If we were to do the logical thing and declared *Islam itself* to be our enemy, our tactics would necessarily be very different. But we have abandoned our Judeo-Christian roots, and as a result, we have become deaf, dumb, blind, broke, and stupid.

Daniel Trotta, writing for *Reuters* (June 29, 2011) calculates: "The final bill will run at least \$3.7 trillion and could reach as high as \$4.4 trillion, according to the research project 'Costs of War' by Brown University's Watson Institute for International Studies." Note that this is well over *double* Captain Nasuti's estimate of \$1.7 trillion to kill every Taliban soldier on earth at the rate of \$50 million per corpse. "In one sense, the report measures the cost of 9/11, the American shorthand for the events of September 11, 2001. Nineteen hijackers plus other al Qaeda plotters spent an estimated \$400,000 to \$500,000 on the plane attacks that killed 2,995 people and caused \$50 billion to \$100 billion in economic damages. What followed were three wars in which \$50 billion amounts to a *rounding error*. For every person killed on September 11, another 73 have been killed since." And yet, people are labeled "unpatriotic" for pointing such things out.

Every hour, American taxpayers are paying \$10.45 million for the cost of War in Afghanistan; \$824,328 for the cost of War in Iraq (yes, we're still paying for it)—that's \$11.26 million *every hour* for the total cost of our wars since 2001. (Source: *brown.edu.*) *Every hour*, taxpayers in the United States are paying \$60.71 million for the Department of Defense: \$964,006 for F-35 Joint Strike Fighter; \$36,563 for Tomahawk Cruise Missiles; and \$2.2 million for Nuclear Weapons. *Every single hour*. If we continue such an insane level of military expenditure, America—the last formidable bastion of liberty in the world—will be bankrupt and feeble by the fourth decade of the twenty-first century, unable to protect anybody, including itself.

Call it 20/20 hindsight if you like, but it seems to me there may have been a better way to do this. America should have taken our cues from Yahweh's instructions to ancient Israel. If we had done these things, our situation would have been radically different than it is today: we would still have been hated, no doubt, but we would *not* have been successfully attacked and suckered into another expensive (and ultimately unwinnable) war. We *should have*: (1) Honored Yahweh in our national institutions, following His instructions wherever possible. (2) Attacked no one except in direct and honest self defense. (3) Secured and defended our borders, both physically and spiritually. (That is, we should have

allowed no one into the country who wasn't demonstrably our friend and ally. Yes, we should shelter refugees with open arms, but *only* those who are willing to assimilate into a society that honors Yahweh in its laws, culture, and institutions—something that rules out *every* Muslim believer and every atheist as well). And (4) we should never have accommodated or compromised with "Babylon" (the world's satanic system). This would include refusing to be "yoked with unbelievers" through such institutions as the United Nations.

I realize that all of that is an unrealistic pipe dream, a Messianic utopia that cannot and will not exist on the earth as long as mankind is still sinful and free will is given free reign—even under a political system as promising as America's once was. But two interrelated factors are poised to fundamentally transform the current paradigm. First, **"The work of God [is] that you believe in Him whom He sent."** (John 6:29) The second is the coming Sabbath—i.e., the seventh millennium of fallen man. According to God's law, we may not "work" on the Sabbath. That is, our ability to choose to love God, to voluntarily place our trust in His grace, to "believe in whom He sent," is *about to be curtailed*. If my observations are correct, the sun will set on the sixth day, this present age, in 2033—not coincidentally, the very same timeframe upon which so many of these doomsday factors we've been studying seem poised to converge.

The "belief" of which Yahshua spoke requires free will, leading to reliance on Yahweh's solution to our little predicament—sin. But why will our ability to choose to receive His Messiah be curtailed on the coming Sabbath? It's because God is about to *show Himself*. Evidence, the food of faith, is about to be replaced with undeniable *proof*. Under the present paradigm, "Without faith [defined above as "the work of God"] it is impossible to please Him, for he who comes to God must believe that He is, and that He is a rewarder of those who diligently seek Him." (Hebrews 11:6) But when the Sabbath comes, no one may do such "work," according to God's own law. Nor will anyone have to "diligently seek Him," for His presence and authority will be obvious and apparent to all. Man's privilege of choice, then, will give way to a "rod (or scepter) of iron" in the hand of Yahweh's glorified Messiah, Yahshua. (See Psalm 2:9, Revelation 2:27, 12:5, and 19:15.) I hate to rush you, but if you're considering repentance, the time to do it is *now*. There's very little daylight left.

What does all of that have to do with the cost of war? Once again, we seem to be approaching a tipping point in this regard, an event horizon beyond which (if things continue as they are) human civilization cannot hope to continue. The post-Christian world spends enormous sums to send armies to fight nebulous and elusive enemies in distant Muslim lands, while welcoming Muslims by the millions onto their shores—and they don't see the inconsistency. They long for the prosperity and progress once enjoyed in our Judeo-Christian past, yet they now ignore or attack those very principles at every turn, populating the halls of political power and academia with functional atheists—and we don't comprehend the disconnect. Having abandoned God as our ally, we no longer perceive who our enemy is. Oliver Hazard Perry once famously reported his battle victory during the War of 1812: "We have met the enemy and they are ours." These days, we'd have to phrase that, "We have met the enemy and *he is us.*" (Hat tip to cartoonist Walt Kelly.)

In short, we no longer know who we are or what we want. We don't know who we're fighting against, or why. In ancient times, waging war was expensive, but if there was enough booty to be had, aggressive and avaricious kings were willing enough to go to war against their neighbors in hopes of grabbing what they could. It was evil, but at least there was some logic behind it, given the fallen nature of man.

But now, as we approach the end of the age, we spend incomprehensibly vast sums to wage wars, and we don't even understand why we do it. In our politically correct stupor, we refuse to "profile" our enemy or learn what motivates him. Though we have much at risk, we have absolutely nothing to gain. We have no clear objectives or goals; we can't even define what "winning" would be. Oh, we can claim to be building nations, freeing people from tyranny, or providing democracy. But democracy and freedom are false and fickle gods: imposing these foreign concepts on a Muslim nation is like asking water to flow uphill. If we had studied Islam, we'd know that. There is a reason the only "stable" Islamic nations for the past century have been run by ruthless dictators, whether overtly or from behind the scenes. The only cure for Islam is Christ, but America no longer wants to hear it (and the rest of the world has no idea what that even means).

It's some kind of sick joke to call our foreign wars "national defense," for although our enemies hate us, they almost never attack us on our own soil. And even when they do, it's no longer as sovereign nations deploying armies or navies, but individuals—as often as not, people we welcomed and supported perpetrating sneaky attacks against soft, harmless targets. Since their very beginning, the height of Islamic achievement has been to cause suffering and death to innocent people. The fact is, *they* have no more to gain than we do. They're not really expecting to "win a war" any more than we are—they're merely lashing out in greed, frustration, and anger, as they believe their god instructed them to do.

We can't "win" such a war, and neither can our adversary. It's not a matter of how much we spend or how much we risk. It's not even our relative willingness to "die for the cause." The fact is, "winning" has no logical definition anymore (except in Israel, where "winning" means you get to live your life in relative peace until the next Islamic attack). The world spends so much on "wars and rumors of war" these days, it isn't hard to see where it will all end if things continue on their present course: in financial ruin, universal anarchy and global civil war, followed, as night follows day, by absolute tyranny under a ruthless central government—despotism that will actually be *welcomed* (at first) because of the terror and desperation of the times. Students of Bible prophecy aren't having any trouble reading the writing on the wall.

Thankfully, the coming tyranny won't last long. But although man's (and Satan's) moves are relatively easy to predict, we wouldn't have a clue as to what Yahweh was up to had He not made a point of telling us. Nobody (other than the faithful) will see *this* coming: "Now it shall come to pass in the latter days that the mountain of Yahweh's house shall be established on the top of the mountains, and shall be exalted above the hills; and all nations shall flow to it...." A "mountain," besides being a literal highland location, is in Biblical symbology a place of power or majesty. The "mountain of Yahweh's house" can only be in one literal city—Jerusalem. The "house," of course, is the Millennial temple, described in detail in Ezekiel 40-47. God *will* reign on Earth, or be called a liar.

"Many people shall come and say, 'Come, and let us go up to the mountain of Yahweh, to the house of the God of Jacob. He will teach us His ways, and we shall walk in His paths.' For out of Zion shall go forth the law, and the word of Yahweh from Jerusalem...." The survivors of the Tribulation (*ammim*—peoples, plural—i.e., not just Jews) will know and recognize who sits on the throne of Israel: Yahweh, God Himself, the one whose ways, paths, and law (or instruction—the Hebrew word here is *Torah*) were first given to Israel through Moses. But how is that going to work? No man can see God in his full glory and live to tell the tale (see Exodus 33:18-23, John 1:18). But the prophet says "The *Word* of Yahweh shall go forth from Jerusalem." Yahshua—Jesus—*is* that Word, God made flesh, full of grace and truth (John 1:14). If you're laboring under the illusion that the Messiah is something or someone other than Yahweh Himself, you need to deal with this.

And what will Yahweh incarnate do about war in the earth? "He shall judge between the nations, and rebuke many people. They shall beat their swords into plowshares, and their spears into pruning hooks. Nation shall not lift up sword against nation, neither shall they learn war anymore." (Isaiah 2:2-4) Modern warfare is a horrendous waste of life and resources, so it will utterly *disappear* under the reign of the Prince of Peace. It can't come a moment too soon.

## The War Against Morality

The soldier vs. soldier sort of military conflict isn't the only war going on these days. Sometimes our most effective enemies are the ones we can't see, don't expect, or wouldn't even recognize as a foe until it's too late, and we find ourselves with our backs against the wall. We're fighting a *spiritual* war.

There's a name that pops up sporadically throughout the Bible, from the Torah to the Book of Revelation, that is meant to serve as a reminder of this sort of sneaky, underhanded war. The story is found in Numbers 22-25. A man named Balaam, who possessed apparently genuine prophetic gifts, was hired by Balak, the king of Moab, to curse the Israelites during their wilderness wanderings. Apparently the paranoid Balak (a descendant of Abraham's nephew Lot) had forgotten the promise God had made concerning Abraham in Genesis 12:3—and he never even knew about the instructions Yahweh had issued to the Israelites (Deuteronomy 2:9) to leave the Moabites alone as they made their way to Canaan.

Long story short, Balaam (being a prophet) found that he *couldn't* curse Israel, no matter how much he wanted to earn the fat fee Balak was offering. So he did the next "best" thing: he suggested that the Moabites "make love, not war" (as the hippies used to say back in the Vietnam War era). The result? "Now Israel remained in Acacia Grove, and the people began to commit harlotry with the women of Moab. They invited the people to the sacrifices of their gods, and the people ate and bowed down to their gods. So Israel was joined to Baal of Peor, and the anger of Yahweh was aroused against Israel." (Numbers 25:1-3) Because of Israel's fall (or should I say, *jump*) into idolatry effected by the seductive Moabite women, God gave instructions to hang the ringleaders who had invited them into the camp, and He sent a plague upon the people that killed 24,000 Israelite men.

So Bible contributors from Moses, Nehemiah, and Micah, to Peter, Jude, and John warn us about the "counsel of Balaam," the "way of Balaam," the "error of Balaam," and the "teaching of Balaam." In a nutshell, the strategy of Balaam was, if you can't get God to curse His people, get God's people to curse Him. This, at its heart, is a corollary to the serpent's *modus operandi* in the Garden of Eden: plant the seeds of doubt in Yahweh's good intentions toward you. Project your own evil agenda onto God. Suggest that He can't be trusted—and if He "can't be trusted," why should we heed His commandments?

In these last days, unfortunately, we (most of us) don't even know what those commandments are any more. Why is that? They're plainly presented in God's word. But we have all too often surrendered the prerogatives of free will to cultural or religious "professionals" of one stripe or another. It's sort of ironic: back in the Garden, Satan asked Eve, "Has God really said that?" These days, that's precisely the question we *should* be asking when priests, preachers, and pundits purport to present "God's truth." We Christians tend to assume we're planted firmly in the center of God's will, when in fact, we're following the traditions of men rather than the word of Yahweh. It never even occurs to us that we could be receiving as God's doctrine the teachings of flawed and mortal men.

I'll offer a few simple examples. (1) Holidays. God instituted seven of them, commanding Israel to observe them throughout their generations—the idea being that the gentiles were to observe Israel. That is, while He left no similar instructions to gentile believers, one would hope that we would at least *consider* His instructions to His chosen people, with an eye toward comprehending what God meant to teach us all. But what do we do? We observe a completely different set of holy days, most of them derived directly from the ancient and evil mystery religion of Babylon. God didn't instruct anybody to celebrate the Messiah's birthday, and yet the whole Christian world observes "Christmas" in the dead of winter-in effect (if the date alone is considered) honoring not Yahshua, the Son of God (who was born in the autumn), but Tammuz, the heir of Nimrod. Yahweh *did* instruct Israel to rehearse the death, burial, and resurrection of the Savior through the Passover, Feast of Unleavened Bread, and Feast of Firstfruits. But what do we do? We celebrate an entirely different spring holiday—called Easter (i.e., Ishtar, a Babylonian fertility goddess), making sure that it falls on a date chosen not to coincide with Passover. In most of Christendom, Easter is even preceded by the observance of Lent, a blatant derivation of the Babylon custom of weeping forty days for the slain "sun god," Tammuz (called "an abomination" in Ezekiel 8). We mean well, no doubt. But the fact that we make an effort to "Christianize" these pagan observances does not negate the fact that we're doing it all wrong.

(2) Diet. Most of the Levitical dietary laws that Yahweh instructed Israel to observe are kept by Christians out of sheer coincidence-bugs and slugs, bats and buzzards, can be presumed to be nasty menu choices. But when something tasty is forbidden we throw God's good advice out the window: "These you shall not eat among those that chew the cud or those that have cloven hooves...the swine, though it divides the hoof, having cloven hooves, yet does not chew the cud, is unclean to you. Their flesh you shall not eat, and their carcasses you shall not touch. They are unclean to you." (Leviticus 11:4, 7-8) There goes your pork, ham, bacon, and carnitas. Same thing with seafood: "All in the seas or in the rivers that do not have fins and scales, all that move in the water or any living thing which is in the water, they are an abomination to you." (Leviticus 11:10) That would include such "delicacies" as shrimp, lobsters, crabs, oysters, clams, and scallops-things that Christians scarf down with gleeful abandon, saying (between bites) "Hallelujah, I'm free from the Law." I'm not saying God will send you to hell for eating pork. He may, in fact, welcome you to heaven a bit ahead of schedule. These things are not food. How can we claim to trust Him if we won't even take His advice about what not to eat?

(3) Government. Since this is a chapter on "geopolitics," it might be worth reiterating something I noted previously: the way we govern ourselves is a far cry from the system (or rather, lack of it) that Yahweh instituted. We American Christians tend to mentally equate our Constitution with "God's preferred mode

of societal order," just because it was written by really smart men who (for the most part) revered their Creator. Yes, the Constitution is arguably the best foundation for living in liberty that man has ever devised, but compared to Yahweh's "Law of Love" (as presented in the Torah), it is an onerous chain that grows heavier every year, because it carries within it the seeds of its own destruction: the passage of new laws. The ink on the Constitution wasn't even dry yet when our founding fathers realized that it failed to protect certain basic freedoms that so many of their contemporaries had fought and died to procure. So the Bill of Rights, the first ten Amendments to the Constitution, were added almost immediately. Founder Thomas Paine once wrote, "Government, even in its best state, is but a necessary evil; in its worst state, an intolerable one." I guess God agrees: His idea of government was to appoint leaders to serve, not rulers to reign. God's people were to have elders or judges, but no lawyers, no police, and no political process whatsoever. The only two blanket requirements were that the people revered Him and loved each other. If they did this, they would live and prosper in their land, no matter what their pagan neighbors did.

I could go on, but you get the idea. We need to get over the presumption that what we're doing is good and right and true and godly, just because we've always done it this way. Customs can compromise conscience—all it takes is time. In the past, Satan has been willing to take *generations* corrupting a people, little by little. Our adversary, it seems, used to be content with such slow and steady tools as religion, apathy, ignorance, lust, and lukewarm normalcy to separate us from a living, vibrant relationship with the Almighty. But now, as we approach the end of days, the pace of corruption has quickened. Satan seems to know that his days of freely messing with us are numbered. During the past few decades, his "cold war" against godly values has heated up.

Many Christians have a feeling, vague though it is, that we are on the cusp of the "Last Days," even if they don't have a very good handle on what that might entail. In the Olivet Discourse, Yahshua described what the times would be like: **"Take heed that no one deceives you. For many will come in My name, saying, 'I am the Christ,' and will deceive many."** (Matthew 24:4-5) This claim, "I am the Christ—the anointed one"—needn't be couched in Judeo-Christian imagery. At its heart, it is merely a claim to be the answer to everyone's problems. As I write this, it is hard to forget the messianic fervor that accompanied the ascension (okay, "election") of Barack Obama to the highest office in American politics—and not just here, but all over the world. Not only did supposedly unbiased news reporters gush about "getting a thrill up their leg" when Obama spoke, he was greeted (at first) with anticipation and enthusiasm in foreign lands as well, even being awarded the Nobel Peace Prize for achieving essentially nothing. (On the bright side, his policies hadn't killed anyone yet, that we know of.) Yahshua also predicted what would follow such unwarranted hero worship: "And then many will be offended, will betray one another, and will hate one another. Then many false prophets will rise up and deceive many. And because lawlessness will abound, the love of many will grow cold." (Matthew 24:10-12) Whenever leaders are hailed with messianic zeal, the results are *invariably* offense, betrayal, hate, deception, lawlessness, and coldness of heart—things that did indeed become the painful legacy of the Obama administration. He's not alone, of course—just the latest in a long string of false Christs. We saw the same thing with Stalin, Hitler, Mussolini, Mao Zedong, Fidel Castro, Ayatollah Khomeini, and Vladimir Putin, among others. They're big fish in small ponds, and all of them are supported by sycophantic shoals of false prophets. The ultimate "false Christ," yet future—the one we know as "the Antichrist," the Beast from the sea, the man of sin, or the son of perdition—will have his false prophet as well, through whom he too will "deceive many."

These false prophets are driving the war against morality we see raging about us today. Peter prophetically described them for us: "There were also false prophets among the people, even as there will be false teachers among you, who will secretly bring in destructive heresies, even denying the Lord who bought them, and bring on themselves swift destruction. And many will follow their destructive ways, because of whom the way of truth will be blasphemed. By covetousness they will exploit you with deceptive words; for a long time their judgment has not been idle, and their destruction does not slumber [that is, God condemned them long ago, and their destruction will not be delayed—NLT]." (II Peter 2:1-3) Some of them will emerge from within the church, but this isn't a universal requirement. Anyone who fits the profile-denial of God's grace (a.k.a. introducing "destructive heresy"), a mischaracterization of both Christ and Christianity, and deception for the purpose of personal gain or gratification—is by Peter's definition a "false prophet." No religious pretense required. Yahweh knows who they are, and has destined them for destruction. But He hasn't prevented them—nor will He—from telling their lies: it is up to us to recognize falsehood when we see it, and reject the testimony of these people.

What are their tools, their methods? Primarily, promises of prosperity and pleasure: "For when they speak great swelling words of emptiness, they allure through the lusts of the flesh, through lewdness, the ones who have actually escaped from those who live in error. While they promise them liberty, they themselves are slaves of corruption; for by whom a person is overcome, by him also he is brought into bondage." (II Peter 2:18-19) Again, think beyond the fringes of the church, where false teachers tickle the ears of the gullible with "prosperity gospel" and "seeker friendly" inclusiveness, telling their victims, "Don't worry about your sin: God is forgiving and merciful. Because He loves you, he wants you to have riches, prosperity, and pleasure. The Law was nailed to the cross: such moral imperatives needn't trouble you any

longer, for you are free and forgiven...." The problem with today's false prophets runs even deeper than that.

Mixing truth with lies is effective enough in some circles, I suppose, but the seductive stories of Hollywood, New York (from Madison Avenue to Wall Street), and Washington D.C. reach a far wider audience. They push the lust of the flesh, the lust of the eyes, and the pride of life—the big three temptations we all face: power, sex, and money. Unlike the "destroy from within" crowd, these three symbolic sources of falsehood no longer even make a pretense of honoring God. They are, rather, pursuing a "brave new underworld," redefining society's mores as they push their counterfeit cultural standards upon the world without reference or deference to God, or even to traditional values and customs.

"Hollywood" (symbolic shorthand for the entertainment industry, which these days would even include the news media) has come a long, long way from the hand wringing and soul searching they endured when, in the 1939 film version of *Gone with the Wind*, Rhett Butler (Clark Gable) "swore" on screen for the first time, telling Scarlett O'Hara (Vivien Leigh), "Frankly, my dear, I don't give a damn." It was all downhill from there. Today, what is said and shown on the silver screen would make a rap star blush.

The *Huffington Post* recently reported that "30 percent of all data transferred across the Internet is porn." (To put that in perspective, in 2012, we created 2.0 quintillion bytes of data *every day*. 90% of the world's data was created in the last two years alone. The text of all the books in the Library of Congress would fit comfortably on a stack of DVDs the height of a single-story house, but in 2010, the world created enough digital data to fill a stack of DVDs that would stretch from Earth to the moon, and back.—*RemoveAndReplace.com*) But the real problem goes beyond the blatant profanity and nudity. It's the subtle chipping away, over the years, of our perception of what is "normal."

I must confess, I'm pretty much out of the loop on today's entertainment (and I intend to remain unenlightened in this regard), but you can hardly miss the trends in film, television, and music: marriage (between a man and a woman—I can't believe I had to qualify that) is portrayed as a quaint, almost obsolete custom. And death or divorce, or at least adultery, are practically *required* plot devices should the subject of marriage raise its ugly head. Children in movie scripts most often have only one parent (or if two, they aren't married).

If Christianity is portrayed, it is virtually always Roman Catholicism (something easily reduced to style in lieu of substance)—and if Evangelical Protestants are in the script, they've invariably got some horrible, dark secret that will reveal them in the end to be hypocrites, lunatics, or child abusers—or they're characterized as something akin to the hatemongering Westboro Baptist Church (which is neither Baptist, nor a church, in any sense God would recognize). In other words, Hollywood has no idea what a *real* Christian even looks like, much less how he thinks or acts. They "get" religion, of course, but they have no conception of what a relationship with the Living God is. Islam, naturally (along with Buddhists, Hindus, Sikhs, and any other eastern religion) are portrayed with sympathy and respect. Muslim *terrorists*, who make great plot-fodder, are said to be fringe radicals, not "mainstream" or even "fundamentalist" Muslims. Homosexuality is presented as a normal, healthy alternative to heterosexual relationships. But in Hollywood, the idea of sex exclusively between two people of opposite sexes who are married to each other in lifelong commitment is so quaint, it's practically unheard of. Their idea of "chastity" is to wait until the third date to hop into bed.

"New York" is the city-symbol for Wall St. "bankster" greed, as well as covetousness driven by a multi-billion dollar Madison Avenue advertising industry. Whereas God said, "You shall not steal; you shall not covet," the whole "civilized" world today is motivated by the accumulation of money and *stuff*. The moment a society gains a modicum of affluence (as China has in recent years), greed and covetousness enter the picture: enough is never enough. Again, it's a subtle phenomenon, for there is a fine line between needs and wants. The ironic thing is, the more we grasp at the possessions we wish we had, the more satisfaction slips through our fingers: poverty (at least for the majority in America) is on the increase, as our expenses rise and our real incomes fall.

As with so many other factors, the trend toward "possession obsession" seems to be picking up speed. Our technology (itself a relatively new part of our lives) is the catalyst, constantly telling us that (1) other people have things we don't, but should, (2) what we have is obsolete, out of style, passé, or "incorrect," and (3) you're a loser if you don't have the "best." These days, of course, "the best" is not necessarily the most opulent, expensive, or well-built. It may simply be the more politically correct choice. In some circles, it's considered gauche to roll in an S-Class Mercedes, but "in" to drive a Honda Prius—as if swapping fuel economy for toxic batteries in the landfill ten years from now is some sort of environmental coup. The perception they've crafted is: if you have only what you can afford, you're hopeless. If you don't make a show of "saving the planet," you're criminal. If you wear only what's practical and modest, you're a reactionary prude. If you live beneath your means, you're a pathetic. And if you believe in a God you can't see, you're a fool.

The third symbolic city is Washington, D.C. Here, the aphrodisiacs are power and pride. When God gifts a person with leadership abilities and opportunities, the intended response is service with humility—the sort of traits we saw in Moses (or George Washington and Abraham Lincoln, for that matter). But the halls of power today (and not just in America) tend to attract a different sort—people who lust for power, because (1) they are genuinely convinced they know what's best for other people; (2) they think too much freedom is untidy and dangerous in the hands of the unwashed masses; and/or (3) they intend to make a killing (financial or otherwise) with the power they wield.

When George Washington chose not to run for a third term of office, leaders here and abroad were aghast: why would anyone (especially someone as popular as Washington) voluntarily relinquish the reins of power? It was unheard of. But people whose pride deludes them into believing they're essential—that their nation can't get along without them—are invariably loath to step down. Franklin D. Roosevelt was such a man—elected to the presidency four times (and dying in office) before a Constitutional amendment wisely limited our leaders to Mr. Washington's self-imposed tenure of two terms. Russia's Vladimir Putin is another who, once having held office, never really let go of it, even when he was not *technically* his nation's leader. But nobody beats the North Koreans for holding onto power in the face of all reason. *Wikipedia* reports, "On December 28, 1972 party leader and Premier Kim Il-sung proclaimed himself President and thus become head of state. He held this office until his death on July 8, 1994 when he was proclaimed the '*Eternal* President of the Republic.'" Can you spell "outoftouchwithreality?"

One of the hallmarks of a bad leader is their all-too-prevalent propensity to consider the law of the land as "not applying to me." It's a slippery slope that invariably divides the populace into "us" vs. "them," i.e., one set of rules for the elites and another for the masses. The heart of such of philosophy is lawlessness—or more correctly *selective* lawlessness. The idea is that ordinary citizens need to be heavily regulated, reined in, restricted in their activities, and watched like a hawk. Meanwhile, the ruling elite get a pass—special privileges and perks designed to pamper and protect them from the very burdens they impose on others. Their version of the "golden rule" is: he who has the gold gets to make the rules. This attitude stands in marked contrast to Yahweh's instructions on how kings should approach the law: "Also it shall be, when he sits on the throne of his kingdom, that he shall write for himself a copy of this law in a book, from the one before the priests, the Levites. And it shall be with him, and he shall read it all the days of his life, that he may learn to fear Yahweh his God and be careful to observe all the words of this law and these statutes, that his heart may not be lifted above his brethren, that he may not turn aside from the commandment to the right hand or to the left, and that he may prolong his days in his kingdom, he and his children in the midst of Israel." (Deuteronomy 17:18-20)

The trend toward lawlessness in high places will find its ultimate expression in the Antichrist, who is describes as "the lawless one," and "the man of sin." Leaders today must at least give lip service to the laws of the land, no matter how blatantly they circumvent the will and well-being of their people. But the Antichrist—who is prophesied to rule the whole world—will do pretty much as he pleases, and for a time, he'll get away with it, for people are too often willing to defend their poor choices to the bitter end. Daniel has a lot to say about him: "He shall speak pompous words against the Most High, shall persecute the saints of the Most High, and shall intend to change times and law." (Daniel 7:25) "His power shall be mighty, but not by his own power." That is, he will be constrained not by law or custom, but will instead be empowered by Satan. "He shall destroy fearfully, and shall prosper and thrive. He shall destroy the mighty, and also the holy people. Through his cunning he shall cause deceit to prosper under his rule; and he shall exalt himself in his heart. He shall destroy many in their prosperity. He shall even rise against the Prince of princes." (Daniel 8:24-25)

As brutal as rulers have been throughout history, today's leaders (some of them) fit *this* profile as never before. Under rulers like Nebuchadnezzar or Nero, cunning was optional, and deceit didn't have to prosper—the king merely did as he pleased. "Destroying the prosperous" was in ancient times a good way to get yourself assassinated by your own inner circle. But today's leaders increasingly live by the lie—the bigger the better—and they have a disconcerting habit of throwing their supporters under the bus at the first sign of personal political peril. Their tools are no longer bodyguards and bulwarks, but such things as the IRS, the NSA, and the 24-hour liberal-dominated news cycle. That being said, I fear they're nothing but pale previews of coming attractions. The Antichrist will "accomplish" what today's worst leaders can only dream of. "Then the king shall do according to his own will: he shall exalt and magnify himself above every god, shall speak blasphemies against the God of gods, and shall prosper till the wrath has been accomplished; for what has been determined shall be done." (Daniel 11:36)

My point is simply this: the Antichrist's overreach will be so far beyond what mankind has seen throughout his history, he would never be able to pull it off (at least not with the sort of universal acclaim described in Revelation 13:4-7) without a period of time in which mankind became accustomed to the concept of "beloved tyrants." You'd think the human race would have lost its taste for "messiahs" after Napoleon, Hitler, and Mao. But as the "majority's" reaction to Obama and Putin still shows, some people can't seem to get enough of leaders who promise to "fundamentally transform" everybody's lives, one way or another. Think about it: "hope and change" are seen as good things only to people who perceive their lives to be horrible. (And it seems to me that this is the common attribute of people who are not thankful before God.)

So even if these "messiahs" are not all that talented or innovative, folks tend to project their fondest hopes and dreams onto them. There is something *wrong* when a man like President Obama can earn the distinction of being the worst, weakest, most dishonest chief executive America ever had, and *still* garner a 43% job approval rating in the polls. It says nothing about Mr. Obama, and *everything* about the desperation of man. Our desire for a Messiah is palpable and universal. But we will never be satisfied until the *real* Messiah—Yahweh's Anointed One—finally makes His appearance. Alas, we've got (at least) one more spectacularly successful counterfeit to go before that happens.

The war against morality is fought on many fronts. Though the "tone" of a nation is set by the behavior and attitude of its leaders, they cannot long remain in power without the general agreement and support of their citizens. So scripture informs us that godliness will go out of style during the last days, and not just among the elite: "Know this, that in the last days perilous times will come. For men will be lovers of themselves, lovers of money, boasters, proud, blasphemers, disobedient to parents, unthankful, unholy, unloving, unforgiving, slanderers, without self-control, brutal, despisers of good, traitors, headstrong, haughty, lovers of pleasure rather than lovers of Cod, having a form of godliness but denying its power." (II Timothy 3:1-5) That list of character traits is really depressing if you're one whose delight is in the Law of God—but alas, it's one that is evident in society today as never before.

It speaks of a generation living their lives without deference to any power higher than themselves—the quintessential Darwinist mindset. For the past century, mankind has been incessantly taught that he is only a highly evolved animal, that there is no God other than blind chance, and that life ends with the death of the body. So naturally, he (the one described here by Paul) has concluded that "being good" is a meaningless concept, for there is no divine authority to define what "good" is, no meaningful standard by which to gauge one's performance. There is "expedient," "pleasurable," and "gratifying," but there is no such thing as "good." So the only "logical" attitudes are selfishness, greed, and narcissism. And given these moral proclivities, the next natural step is toward arrogance, brutality, treason, and the ridicule of godly virtue in others.

But that last phrase, "having a form of godliness but denying its power," is telling. It implies that for whatever reason, there will still be people who sense that there actually *is* such a thing as "good," that moral absolutes still exist in this world (despite what they've been told all their lives). And their opinion will still count for something (at least until the rapture). They know, somehow, that cold blooded murder, theft, perjury, and adultery are intrinsically wrong. They don't have to be taught that rape, cannibalism, and genocide are not conducive to the general well-being of the human race (or even that the well-being of humanity is a good thing, for that matter). So the men about whom Paul is warning us here will, even in these next-to-last days, have to at least give lip-service to conventional social mores, even if they don't personally ascribe to them. In confirmation of this, Christ describes the church of the rapture, Philadelphia, in these terms: "I have

set before you an open door, and no one can shut it, for you have a little strength.... I will make them come and worship before your feet, and to know that I have loved you." (Revelation 3:8-9) Having a "little strength" describes a very different situation for God's people than the three and a half years of the Antichrist's reign (the Great Tribulation), as described to Daniel: "It shall be for a time, times, and half a time; and when the power of the holy people has been completely shattered, all these things shall be finished." (Daniel 12:7)

So what are we to do with the "despisers of good?" Kill them? No (not even if they need killing). Such an action would make us the "unloving, unforgiving, slanderers, without self-control, brutal, and despisers of good." No, we are simply to refuse to heed them, rejecting the basis of their error—the premise that there is no God to whom we must answer. Or as Paul puts it, "From such people turn away!" And then he says something interesting: "For of this sort are those who creep into households and make captives of gullible women loaded down with sins, led away by various lusts, always learning and never able to come to the knowledge of the truth." (II Timothy 3:5-7) The influence of these ungodly people, he says, will take root in people's homes, where they live (i.e., not just on the battlefield or in the halls of political power). The damage they cause will be suffered by the gullible especially among women, for some reason—who are *already* "loaded down with sins." I can't help but reflect on the forty-five million abortions that are performed every year in this world, mostly in the name of "women's rights," though this is but one permutation of the problem. It doesn't matter how much a person "learns." If it isn't the truth, knowledge is pointless, or worse. That's why we weren't called to knowledge or scholarship—we were called to love.

The social theory driving the mindset of the people whom Paul described is called "moral relativism," defined thus: "Moral relativism is the view that ethical standards, morality, and positions of right or wrong are culturally based and therefore subject to a person's individual choice. We can all decide what is right for ourselves. You decide what's right for you, and I'll decide what's right for me. Moral relativism says, 'It's true for me if I believe it."—*Moral-Relativism.com.* It seems to me, however, that one's philosophical confidence in moral relativism won't likely survive being mugged in the park, raped, robbed blind, and left for dead. Your attacker's "relative morals" (i.e., "*My desires outweigh your needs*") suddenly won't count for much.

That being said, "Moral relativism has steadily been accepted as the primary moral philosophy of modern society, a culture that was previously governed by a 'Judeo-Christian' view of morality. While these 'Judeo-Christian' standards continue to be the foundation for civil law, most people hold to the concept that right or wrong are not absolutes, but can be determined by each individual. Morals and ethics can be altered from one situation, person, or circumstance to the next. Essentially, moral relativism says that anything goes, because life is ultimately without meaning. Words like 'ought' and 'should' are rendered meaningless. In this way, moral relativism makes the claim that it is morally neutral."

Robin Schumacher, writing for *Carm.org*, notes, "In modern times, the espousal of moral relativism has been closely linked to the theory of evolution. The argument is, in the same way that humanity has evolved from lesser to greater biological organisms, the same process is in play in the area of morals and ethics. Therefore, all that can be ascertained at present (and forever) is that there is no absolute or fixed certainty in the area of morality." The idea is, we're all just animals. Morality for the wolf differs from that of the lamb—and the shepherd, for that matter. The highest moral imperative is survival, but everybody defines that differently, and more to the point, in personal terms, what's best for *me*?

So not surprisingly, "Following this argument to its logical conclusion causes consternation among many, even those who espouse moral relativism. Paul Kurtz, in the book *The Humanist Alternative*, sums up the end result this way: 'If man is a product of evolution, one species among others, in a universe without purpose, then man's [only] option is to live for himself....'

"The problem for the moral relativist (who is most times a secular humanist who rejects God) is they have no good answer to the two-part question: Is there anything wrong with an action and, if so, why? Appealing to the relative whims of society or personal preferences doesn't provide satisfying answers. A better response to the question necessitates that an individual have: (1) an unchanging standard he can turn to, and (2) an absolute authority by which proper moral obligation can be defended. Without these, morals/ethics simply become emotionally based preferences. Rape, for example, can never be deemed *wrong*; the strongest statement that can be made about rape is 'I don't like it." The natural, inevitable result of the relativist mindset is lawlessness, for "laws" are perceived as having been based on nothing more substantial than "the convenience of the majority," hence they carry no particular weight. On the other hand, if laws are generally perceived to have descended ultimately from divine authority (the moral absolutist's position), there only two questions: is this particular law in accordance with the revealed will of that Authority, and if it is, do I choose to voluntarily submit myself to it—and to Him?

Thus moral relativism (as opposed to moral absolutism) is found to be at the heart of the world's antagonism toward Christ and His church, or even toward simple godly standards of behavior—common human decency. We believers read our Bibles and heed our consciences, and come to such "intolerant" conclusions as, sin harms the sinner. So homosexuality (or any other sexual perversion) is wrong, abortion is murder (hence wrong), and Islam is satanic (wrong on steroids). And those who espouse such things assume that Christians hate them, because we do not support their behavior or beliefs. But that's not accurate. It's not that we hate *them*; we merely hate the chains that bind them, we hate the blindfold that covers their eyes. The hatred they perceive *against people* doesn't really exist. But of course, that doesn't prevent them from hating us in return.

If they only knew. Our "hatred" of *behaviors* common to man extends far deeper than they know—to things most people would consider (in these days of depravity) to be harmless, almost innocent—even (or especially) *when we ourselves fall prey to them.* We "hate" sex outside the bonds of marriage—not just sodomy, bestiality, and rape, but adultery, extra-marital or pre-marital sex, and even immodest, needlessly seductive apparel. And we "hate" entertainment media that glorifies and promotes such things.

We "hate" child abuse—not just abortion, physical and mental abuse, but neglect as well, the all-too-prevalent practice of leaving it to government and society to raise our children, when it is our responsibility. It is up to *us parents* (*both* of them) to teach them, feed them, clothe them, nurture them, introduce them to God, and yes, discipline them.

We "hate" drug abuse—and not just heroin or cocaine, but anything we might use in an attempt to sever our connection with reality, knowing that this mortal reality is the only chance we'll get in which to choose our eternal destiny wisely. Life is a precious resource, a gift that should not be wasted.

We "hate" religious institutions and practices that separate people from the love of their Creator, Yahweh—and not just Islam and overt Satan worship, but anything, even within the bounds of cultural Christianity, that misrepresents God and the grace He provides.

We "hate" theft and greed—and not just criminal endeavors (violent or not), but financial malfeasance in high places and low, and even simple irresponsibility in personal and public financial affairs.

And we "hate" anti-Semitism—active attacks toward, or passive resistance against, Yahweh's chosen people Israel, whether in the Land or outside it, and whether or not they have, as individuals, repented before God.

But in our lucid moments, Christians do *not* hate the people who perpetrate such crimes against God and man, for we realize that they are in need of our Savior—they're *lost*, just as we once were. They are victims of the demons (whether real or metaphorical) who trouble them. They deserve our pity, our mercy, and our love, not our hatred.

Allow me to offer a personal illustration of how this "hate-the-behavior-butnot-the-person" thing works. My wife and I once adopted a handicapped Korean infant who was diagnosed with CMV (cytomegalovirus, a common third world affliction, potentially debilitating if one's mother contracts it during pregnancy). Our daughter didn't walk until she was three, and didn't talk until she was six, though the doctors told us she would probably never reach either milestone. At present, she's in her early thirties, but she functions at about a six-year-old level. When she hit puberty, bi-polar disorder (a common symptom of the syndrome) kicked in, and she began harming herself, or threatening to. We had to hide the cooking knives and remain hyper-vigilant whenever she was upstairs, for fear she might jump (which she tried to do several times). Life was, shall we say, "interesting" until we got her psych meds properly balanced. Bottom line: we loved our daughter, but hated her behaviors.

So as I see it, when a Christian warns a homosexual that Yahweh considers his lifestyle choice an "abomination" (God's word, not mine), he's not being "intolerant." Not of the gay guy, anyway. Rather, he sees before him in his mind's eye a manic, terrified little girl with a steak knife in her hand, threatening to slit her wrist, because she just doesn't know what else to do. In other words, we just want to help. Perhaps we do it clumsily; I don't know. But it is not an act of love to watch a person drown in sin when it is in our ability to throw him a life preserver.

At some level, people who sin *know* that what they're doing is wrong, no matter how skillfully they're able to justify it in their minds. (Of course, we *all* sin: I'm referring to people whose sin defines them, those who prefer to live with it and in it.) The war on morality we're seeing in these last days is in reality just a series of *strategies* people have developed in order to live more comfortably with their sin. Moral relativism, as we have seen, is a futile attempt to remove the authoritative standard—God Himself—from the equation.

But then they find they still have their consciences to deal with—that nagging inner voice that tells them the difference between right and wrong, even if they've convinced themselves that there is no objective basis for these feelings. Paul explains: "For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who suppress the truth in unrighteousness, because what may be known of God is manifest in them, for God has shown it to them." The glory of God is revealed through His creation, if only we'll open our eyes to the scientific data, which fairly *screams* "There is an Intelligent Designer at work here." The conscience is an extension of "what may be known of God." It is His Law, hard wired into our hearts. "For since the creation of the world His invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that they are without excuse, because, although they knew God, they did not glorify Him as God, nor were thankful, but became futile in their thoughts, and their foolish hearts were darkened." (Romans 1:18-21) That, in a nutshell, describes the suppression of the conscience.

A bit later, he speaks again of the conscience: "When Gentiles, who do not have the law, by nature do the things in the law, these, although not having the law, are a law to themselves, who show the work of the law written in their hearts, their conscience also bearing witness." (Romans 2:14-15) For instance, the Torah says, "You shall not murder." But you don't need the Torah to know that murder is wrong. The same thing could be said for scores of "bad behaviors." Our laws—even in pagan nations—reflect the general agreement between the Torah and man's conscience. That being said, only *three* of the Ten Commandments are found in American jurisprudence—the prohibitions against murder, theft, and perjury (things the people who *run our government* violate routinely these days, I'm afraid). The other seven are either considered unnecessary, excessively religious (i.e., a violation of the First Amendment), or unenforceable.

And truth be told, none of these three "sins" we make a show of "agreeing with" is taken seriously by people who doesn't revere Yahweh. Americans get around them with semantics and loopholes. (1) We prohibit murder, but it is perfectly legal (within limits) to dismember a living unborn fetus in its mother's womb—and we do so upwards of 1.3 million times a year in this nation. (2) Theft is "bad" if you're a freelancer, but the government steals from every productive person in the nation and redistributes the wealth—not just to the poor, but also to "politically correct" business interests, foundations, and organizations, who receive preferential treatment, subsidies, fat contracts, tax breaks, and exemption from onerous regulations to which everyone else must adhere. Robin Hood, they're not. And (3) the concept of "perjury" is some kind of sick joke. No one is required to tell the truth about their crime if they're guilty. Senators, Representatives, and even police are allowed to lie with impunity if they're speaking in their official capacity. And the president can (and does) tell the most outrageous lies, yet is never called to account for them in any "official" way.

In short, conscience is under siege in the halls of power in this nation. And elsewhere, I fear it has already surrendered or has been overrun. Paul saw this coming, too. "Now the Spirit expressly says that in latter times some will depart from the faith, giving heed to deceiving spirits and doctrines of demons, speaking lies in hypocrisy, having their own conscience seared with a hot iron." (I Timothy 4:1-2) Note first that this sort of crisis of conscience can be expected to show up in "latter times"—i.e., *not* throughout the church age. Second, this is a *spiritual* phenomenon, the result of demonic activity—something to which people are susceptible on an invitation only basis. Third, "departure from the faith" informs us that God's truth was available, and even well known to these people, but has been purposely forsaken and abandoned. Be aware as well that having one's "conscience seared with a hot

iron" implies that it was once there, functioning properly, but it has been desensitized, calloused, and scarred to the point where it now feels nothing.

So the war against morality and godliness began with the advent of moral relativism, and was continued through satanic attacks on the conscience of mankind. Both tactics have been moderately successful, but man still hasn't been able to shake the unsettling feeling that he has run afoul of God's intentions: the hound of heaven still pursues. There is still something missing in humanity's plan to live in sin without feeling guilty about it. What could it be?

Oh, of course. It's the presence of the church, the called-out assembly of Yahshua the Messiah. It's the height of irony: even though we know we're flawed and sinful ourselves, saved from our corruption and depravity only by the unfathomable grace of a loving God, our very presence reminds a guilty world: "Your sins *will* kill you in the end. You *are* found wanting before God. Repent and receive God's grace, before it's too late. *Please*." We don't even have to open our mouths in condemnation of their bad behavior. (In point of fact, we seldom do. Most of us are too preoccupied trying to clean up our own acts.) If God's Spirit indwells us, our very presence is enough to condemn them in their own minds. So they hate us, and then project their own hatred into our intentions.

That's why the impending withdrawal of the Holy Spirit (at the rapture) is such a terrifying concept. Paul explains: **"For the mystery of lawlessness is already at work; only He who now restrains** [i.e., the indwelling Holy Spirit, who now restrains evil in the world via its living presence within the ekklesia, as I described above] will do so until He is taken out of the way." When the church is caught up into the clouds to be with her Messiah, the Spirit within us will depart the world as well leaving a spiritual vacuum that Satan will rush to fill: "And then the lawless one will be revealed, whom the Lord will consume with the breath of His mouth and destroy with the brightness of His coming." (II Thessalonians 2:7-8) But between the "revealing" of the Antichrist and his destruction, the war against morality will rage unabated and unopposed.

That's not to say godlessness will fail to make inroads *before* the rapture. "All who desire to live godly in Christ Jesus will suffer persecution." It's not that lost people hate godliness *per se*, but they despise being reminded of their own sin, even if it's not exactly us, but the Holy Spirit living within us, who's prodding them toward repentance with the sharp stick called conscience. "But evil men and impostors will grow worse and worse, deceiving and being deceived...." That's a process we see happening right before our eyes. How are we to resist such an onslaught? "The Holy Scriptures are able to make you wise for salvation through faith which is in Christ Jesus. All Scripture is given by inspiration of God, and is profitable for doctrine, for reproof, for correction, for instruction in righteousness, that the man of God may be complete, thoroughly equipped for every good work." (II Timothy 3:12-17) Ah, those pesky

scriptures—the written communique of the God from whose standards the world so desperately desires to be released. Irresistible force meets immovable object.

I'll mention one more phenomenon that ties the war against morality directly to the Last Days. Peter prophesies, "Scoffers will come in the last days, walking according to their own lusts, and saying, "Where is the promise of His coming? For since the fathers fell asleep, all things continue as they were from the beginning of creation." (II Peter 3:3-4) The world's attacks against Biblical morality are made under the banner of Darwinism, the theory of organic evolution, sometimes called uniformitarianism because the theory assumes "that the same natural laws and processes that operate in the universe now have always operated in the universe in the past and apply everywhere in the universe. It has included the gradualistic concept that 'the present is the key to the past' and is functioning at the same rates."—*Wikipedia*. That definition fits Peter's warning to a tee.

The idea is, "Since we have no Creator other than blind chance, there is no sentient Moral Authority in the universe—no one to define what is good or bad, right or wrong. So we are free to live as we please, pursuing power, pleasure, and profit without regard to any negative effect our actions might have upon our fellow man. If my neighbor gets hurt in the process, it only proves that he is 'less fit' than I am." It's the same "George Soros" mindset we examined above: "If I don't rob you, somebody else will—it's better to be the predator than the prey." If there *were* a Creator, of course, Someone who had promised to come and set things right on the Earth, the "survival of the fittest" theorists would be compelled to act and think differently than they do. So they commit intellectual suicide, believing the unbelievable (and thinking the unthinkable) in order to convince themselves that "walking according to their own lusts" is perfectly natural, and more to the point, the only way to succeed in this world.

We can readily see where this mindset leads. Just visit a country where the word of God has never taken root—or has been suppressed by another philosophy such as Islam or Communism. The *only* way such a society avoids tearing itself apart in anarchic chaos is if a tyrant emerges who can rule through fear, force, and intimidation. But the geopolitical pendulum swings back and forth. Presently, it is swinging back toward anarchy. Having subjected the world to the likes of Stalin, Hitler, Mao, Saddam Hussein, and Moamar Ghadafi for the past century or so, we seem to be entering an era of mob rule, of constant turmoil. The chaos that inevitably ensues when the godless tyrant goes down is well documented. But it is equally inevitable (not to mention being prophetically certain) that a new tyrant will eventually arise—one who will bring order, even at the cost of liberty.

Driven by ever more sophisticated technology, these societal pendulum swings between anarchy and tyranny seem to be gaining momentum—and speed. They say "Rome wasn't built in a day," and that's certainly true: a millennium passed between its rise and its fall. America ran well for a couple of centuries, but its foundation is now crumbling. Communist Russia was dead and gone seventy years after its inception. Hitler's vaunted "thousand-year Reich" lasted a mere twelve years. These, days, it seems, the tyranny seldom outlasts the tyrant: these tend to be cults of charismatic personalities who have the knack for spouting inspiring (or incendiary) rhetoric, knowing instinctively when to bribe, when to threaten, and when to shoot.

The state of anarchy toward which this godless world is presently headed will be arrested in the end by the popular acclaim of the most powerful "beloved tyrant" of all—the one known as the Antichrist—whose unprecedented worldwide hegemony will endure only three and a half years. Once again (and for the last time), the world will discover through bitter experience that *neither* license with licentiousness nor oppression with order is the answer they've been seeking. Liberty with love is the formula for which man has been searching all this time, but we'll never achieve it outside of a relationship with the One whose character is the basis of moral absolutes, the One who implanted consciences into the psyche of the human race, and the One who called out of the world an assembly of redeemed believers, saved by grace, defined by love, motivated by gratitude, and indwelled by the very Spirit of the living God.

Be not deceived: a war against morality and godly virtue is a war against Yahweh Himself. It is fought in the spiritual realm, where human intellect is as impotent as a pea shooter in a nuclear war. The winner will rule for eternity. Choose your side carefully.

## The Demise of Freedom in the World

America's national anthem describes this country as "the land of the free and the home of the brave." When Francis Scott Key penned those words (in the heat of battle during the War of 1812), it was a palpable truth that would be developed over the next century into the envy (or goal) of every freedom-loving person on the planet. The liberty enjoyed by the citizens of the United States (with a few shameful exceptions) made America the destination of choice for people fleeing tyranny and oppression in the world—making this nation the "melting pot" of the world's "huddled masses yearning to breathe free," as it's phrased in Emma Lazarus's inspiring poem, *The New Colossus*.

But somewhere along the way the "melting pot" became a crucible. We are no longer blending smoothly into one contiguous population concoction; now, we're burning and sticking around the edges, threatening to set off the smoke alarm. The huddled masses still arrive, of course, but only because life has become intolerable—even deadly—elsewhere. Repressive governments in faraway lands make even the worst life in America seem like paradise in comparison, so desperate refugees pay enormous sums to come and live like slaves in the "home of the free." Drug wars rage, making it impossible to live in peace. Imams and mullahs whip their communities into a murderous frenzy over any deviation from Islamic orthodoxy, making a quarter of the world a very dangerous place for a Christian or a Jew (or anybody other than a Muslim fundamentalist). Others come because America has become the land of free stuff. If you learn to play the system, you can get welfare assistance, food stamps, and a free education, all paid for with borrowed dollars by a political machine that has no understanding and no accountability.

At one time, police used to protect and serve (excuse the occasional corrupt big city machine). Now they surveil, restrict, enforce, and intimidate. Every day they look less like police and more like military—right down to the war surplus vehicles and weaponry. Meanwhile, our military services are quietly being transformed into forces that can be used to control and coerce American citizens, on American soil (the principle of *posse comitatus* notwithstanding). A not-so-subtle effort is being made to purge our military of officers and soldiers who might refuse an order to fire upon American citizens. I'm pretty sure we don't live in police state yet, but things are clearly moving in that direction—quickly.

We've gotten used to the idea of multiple, overlapping or competing law enforcement jurisdictions—city police, county sheriffs, state patrols, the Federal Bureau of Investigation (FBI), etc. And most of us are aware of niche agencies such as the Immigration and Naturalization Service (INS), the National Security Agency (NSA), the Central Intelligence Agency (CIA), the Drug Enforcement Agency (DEA), the Bureau of Alcohol, Tobacco, and Firearms (ATF), and of course, the U.S Treasury and Secret Service. Quasi-military agencies like the Coast Guard, the National Guard, and various port and customs authorities dot the law enforcement landscape as well. The warfare specialists, of course, have their own Military Police Corps, such as the Naval Criminal Investigative Service (NCIS) or the United States Army Criminal Investigation Command (USACIDC). Following the mantra, "Never let a crisis go to waste," all of these were placed under the gargantuan umbrella of the Department of Homeland Security (DHS) in the wake of 9/11, under the dubious theory that more top-down control was needed in this country—"one ring to rule them all," so to speak.

But it's even more pervasive than all that. An article by Rob Nikolewski, published in *Watchdog.org* (April 3, 2014), listed a plethora of armed police units, attached to the most unlikely government departments. "Here's a *partial* list: The U.S. Department of Education; The Bureau of Land Management (200 uniformed law enforcement rangers and 70 special agents); The U.S. Department of the Interior; The U.S. Postal Inspection Service (with an armed uniformed division of

1,000); The National Park Service (made up of NPS protection park rangers and U.S. Park Police officers that operate independently); The Environmental Protection Agency (200 special agents); The U.S. Fish and Wildlife Service (224 special agents); and The National Oceanic and Atmospheric Administration. That's right, NOAA—the folks who forecast the weather, monitor the atmosphere and keep tabs on the oceans and waterways—has its own law enforcement division. It has a budget of \$65 million and consists of 191 employees, including 96 special agents and 28 enforcement officers who carry weapons."

Nikolewski reports, "'There's no question there's been a proliferation of police units at the federal level,' said Tim Lynch, director of the Project On Criminal Justice for the Cato Institute, a libertarian think tank based in Washington, D.C. 'To me, it's been a never-ending expansion, a natural progression, if you will, of these administrative agencies always asking for bigger budgets and a little bit more power.' It's been estimated the U.S. has some 25,000 sworn law enforcement officers in departments *not* traditionally associated with fighting crime. According to the U.S. Office of Personnel Management, and in a tabulation compiled by the Wall Street Journal in 2011, 3,812 criminal investigators are working in areas other than the U.S. departments of Treasury, Justice, Defense and Homeland Security."

I can only reflect on what a horrible, lawless people we must be, to need such a wide variety of armed police forces to keep us in line or bring us to justice for our nefarious deeds. (Or could it be that our paranoid government has gone completely off its meds, terrified to lose the power they've grasped for themselves?) If the six o'clock news were our only indicator, it might seem that we were awash in sea of crime. But truth be told, the reported crime rates have dropped dramatically across the board over the past few decades. A chart published by *VictimsOfCrime.org* tracks the trends between 1973 and 2009: Beginning with 4,770 violent crimes annually (per 100,000 population), we spiked to 5,230 in the early '80s, and again to almost that level in the mid-'90s, before sliding to only 1,690 in 2009. Similar trends mark sub-categories such as assault, robbery, and rape.

How are we to account for this general reduction in the rate of reported crimes—a drop of 60% to almost 90%, depending on the type of offense? I'll offer several theories for your consideration. (1) We are all becoming nicer, better-behaved people, who have decided to "give peace a chance." (2) Most of the criminals have already been caught and put in jail, or are out on a "short leash," probation. (3) The increase in police presence has intimidated us into obedience. (4) Violent criminals are getting lazier. Or (5) Fewer crimes are being *reported*, because people no longer trust the police any more than they do the criminals—unless, of course, they need a police report to collect on the insurance

claim. Though these theories range from the silly to the cynical, any of them (with the possible exception of #1) could contain a kernel of truth.

While law enforcement agencies are proliferating like rabbits, there is a popular adage these days: "When seconds count, the police are only minutes away." That is to say, no matter how many police there are, you can't count on them to protect you in times of danger. And yet, it is a popular theory among liberal progressives in this country that guns are responsible for violent crimes. Although the private ownership of firearms is a constitutionally guaranteed right in this nation, they say that if we just made guns illegal, violent crime would cease forthwith. Indeed, the United States ranks *third* in murders among the 196 nations of the world. But here's the rub: if you didn't include the statistics from Chicago, Detroit, Washington D.C., and New Orleans, the United States would come in *fourth from the bottom* of the list. And the epiphany comes when you realize that these four cities have the toughest, most restrictive local gun-control laws in the entire country. Think about it: criminals—by definition—do not obey the law. I neither own a gun nor want to, but the only logical conclusion I can draw is that statistically, private gun ownership does not cause crime-it tends to discourage it. So called "gun-free" zones are in reality "sitting-duck" zones.

That, sad to say, would increasingly include crimes against citizens by wellarmed police. While most cops (at least in America) do indeed operate by a personal "protect-and-serve" code of ethics, two realities must be kept in mind. First, the artificial air of authority bestowed upon an officer by a badge and a gun can (and too often does) encourage him to exceed his (or her) lawful mandate. Our founders were very careful to give us Constitutional protection against unreasonable searches and seizures—something routinely ignored by police today. (The recent proliferation of video cameras—both in the hands of private citizens and police departments themselves, has thankfully mitigated the tendency for officers to exceed their authority.) Although it should not be so, the very presence of well-armed police often creates an adversarial atmosphere, one of tense hostility, whether or not one is guilty of some crime.

Second, a police presence is the tool most easily deployed by corrupt and outof-control governments to prevent the populace from exercising their God-given freedoms. Again, our founders were wise in guaranteeing our right to peaceful assembly, but what was understood by a group of people to be just such a quiet gathering can easily be turned into a riot by the mere *presence* of police in force who are expecting a disturbance—making it a self-fulfilling prophecy. That being said, it's a complicated dynamic: rabble rousing "community organizers" know how to play the average police department like a Stradivarius: they can turn a lawful assembly into a newsworthy example of "police brutality" for a sympathetic scandal-hungry media, turning what should have been simple peacekeeping chores into an exploitable crisis. Blessed are the peacemakers—and *vice versa*.

An illegitimate government can remain in power only through falsehood, force, and intimidation. This is true even in so-called "democratic" nations, where votes are bought with hollow promises of "hope and change" (to quote a recent example), blatant bribes, or brutal coercion. Corruption can become so rampant, it no longer matters who votes, or for whom; it only matters who *counts* the votes. Left to their own devices, people naturally gravitate toward individual freedom—they will do what seems right to them (see Judges 21:25). It is only when they feel threatened that they seek to establish governments designed to protect them. But governments are like chemotherapy to a cancer patient: the cure can seem worse than the disease. Given enough time (and enough power), they invariably become worse than the threat they were instituted to combat.

The American Revolution was precipitated by a three percent tax on tea. I think we can safely say that our own government has now exceeded the scope of this "intolerable British tyranny." Why have we not surrounded the Capitol, pitchforks and torches in hand? Because we have succumbed to the falsehood, force, and intimidation we ourselves invited into our lives. The only things preventing us from becoming Nazi Germany all over again are (1) a relatively free press (if you include the Internet), (2) personal gun ownership (something designed from the beginning to give tyrants pause), and (3) a Constitution guaranteeing such things as freedom of speech and freedom of worship-things that are non-existent in many nations today. Don't look now, but all of these principles are under attack in America. Film maker Dinesh D'Souza (who has seen enough of the world to know) says, "America is the greatest, freest and most decent society in existence. It is an oasis of goodness in a desert of cynicism and barbarism. This country, once an experiment unique in the world, is now the last best hope for the world." And as Ronald Reagan once said, "If we lose freedom here, there is no place to escape to. This is the last stand on earth."

That's the problem, isn't it? What President Reagan warned us about is now threatening to become reality. If America becomes a totalitarian police state, where can refugees from other lands go to find freedom? Other nations (who were not founded on Judeo-Christian principles) have problems of their own that conspire to make them poor destinations. Even if they're not the sorts of places from which you're likely to be fleeing in search of liberty (like Cuba or Venezuela, China or Vietnam, most of Africa, or anywhere in the Islamic world) most of the potential destinations of the world's "huddled masses yearning to be free" invariably have flaws of their own. At best, they're over-regulated, overtaxed police states like America is becoming. At worst, they're chaotic cesspools, rife with crime, disease, and anarchy. Most of the best "alternatives" to America are to be found in the British Commonwealth, but alas, most of these nations are even farther down the road to ruin than we are. There is a *reason* hundreds of thousands of Latin Americans have risked everything to come to the United States—legally if they can, illegally if they have to. This is liberty's last stand.

How close are we to losing it? An article by Robert P. Abele, published on *CounterPunch.org* (December 27, 2013) was entitled "From Freedom to Totalitarianism and Beyond—The End of Freedom in America?" He writes, "As must appear self-evident to both historians and astute observers by now, the United States, in its history, has had a rather facile and at times acrimonious relationship to the idea of domestic democracy.... What is seldom noticed, however, is the *speed* with which the U.S. has moved from a liberal democracy to, at best, an authoritarian government.

"To demonstrate this rapid movement in U.S. government, we will use as a base Franklin Delano Roosevelt's 'Four Freedoms' address to Congress, on January 6, 1941. By all rights, and regardless of FDR's real intent (some say it was to garner support for U.S. involvement in WWII), very few would doubt that his elucidated four freedoms form an important base for understanding liberal democracy." Alas, fewer still would pause long enough to consider that perhaps "liberal democracy" is part of the problem, or more to the point, a solution to the specter of authoritarian government that carries within it the seeds of its own destruction. As I see it, it's one more example of being asked to choose between two wrong things, one of which is clearly "wronger" than the other—the very trap into which Eve fell in the Garden of Eden.

Anyway, "Here are FDR's own words, quoted at length: 'The first is freedom of speech and expression—everywhere in the world. The second is freedom of every person to worship God in his own way—everywhere in the world. The third is freedom from want—which, translated into world terms, means economic understandings which will secure to every nation a healthy peacetime life for its inhabitants—everywhere in the world. The fourth is freedom from fear—which, translated into world terms, means a world-wide reduction of armaments to such a point and in such a thorough fashion that no nation will be in a position to commit an act of physical aggression against any neighbor—anywhere in the world. That is no vision of a distant millennium. It is a definite basis for a kind of world attainable in our own time and generation. That kind of world is the very antithesis of the so-called new order of tyranny which the dictators seek to create with the crash of a bomb. To that new order we oppose the greater conception the moral order. A good society is able to face schemes of world domination and foreign revolutions alike without fear." As he would opine months later, "The only thing we have to fear is fear itself."

Roosevelt was right (and wrong) to protest that his vision might sound a bit like the Millennial reign of Christ. It is certainly a vision of a liberal-progressive utopia on earth—something very different indeed. I have no idea whether or not FDR was a believer. (Though a socialist at heart, references to God and the Bible pop up often in his speeches, although such a thing was "in style" in the 1930s, no matter what you actually believed.) But he clearly didn't comprehend the depravity of man—the concept that as a fallen race, we cannot and will not solve our own self-imposed problems. In short, these goals are *not* "attainable in our own time and generation," even if they're desirable (and not all of them actually are, as we shall see). Mr. Abele discussed each of FDR's "four freedoms" at length. I will spare you his analysis, but I'd like to briefly discuss each one as well, since these concepts are the very foundation of the liberal mindset that's driving America's headlong rush toward authoritarian oblivion.

(1) "Freedom of speech and expression." America of late has prided itself on the tolerance of any viewpoint or proclivity—no matter how bizarre or destructive. We have taken the original intent of the First Amendment and turned it on its head. Ironically, such "freedom of speech and expression" is now used as a gag to *silence* the "freedom of speech and expression" of those who would caution us against what God defines as sin. The concept of "freedom of religion" has subtly morphed into freedom *from* religion—the idea that no one should have to tolerate the utterance of a Christian, Biblical viewpoint because it suggests that something is actually *true*, rather than merely being the will of the majority.

The current "hot-button" issues are so prevalent in the media, they hardly need mentioning (but I'll do it anyway). First, God tells us not to murder people, but it has become a "violation of free speech" to protest against the practice of abortion. The "right" to murder one's unborn child in the womb is held to be sacrosanct among the liberal elite, who go so far as to construe it as a "women's health issue," as if bearing children were some sort of disease. Secondly, homosexuality is roundly condemned in the Bible (Leviticus 18:22, 20:13, etc.). God calls it an "abomination," (the strongest language in scripture), and He made it a capital offense in theocratic Israel (just like adultery and idolatry were). Yet *that* battle has already been "lost" in America; now homosexuals are demanding that everyone recognize same sex *marriages* (not just clandestine liaisons) as being normal and acceptable. In other words, it's not enough that people should have to tolerate perversion perpetrated in private: we must now bless it in public, or be punished by the state. Every point of view except God's, it seems, is now tolerated in this nation.

*Real* freedom of speech and expression would allow both sides to state their views, including exercising the right not to hire or do business with people with whom you disagree—for any reason. But a totalitarian state tries to force

everyone into the same mold—*their* mold—with their standards and opinions, whether they're worthy or not. It's the antithesis of freedom.

(2) "The freedom of every person to worship God in his own way." I have no doubt FDR was thinking about the differences between Catholics, Lutherans, Baptists, and maybe snake-wielding Appalachian Pentecostals—i.e., different "flavors" of Christianity. At the outside, he may have been considering groups like Hindus or Buddhists, Mormons or Jehovah's Witnesses, who tend to exercise their own religions in their own way, without much regard to (or interference with) anybody else. What he didn't factor in were the two most aggressive religions of all—Islam and Secular Humanism (a.k.a. Atheism). Both of these "faiths" is engaged in open warfare with all others.

Perhaps Roosevelt didn't understand Islam because during his lifetime it was a lot like Catholicism had been in Europe during the Middle Ages—that is, it was more a cultural phenomenon, a traditional way of life, than it was a living faith to its adherents. Very few bothered to read the scriptures—of either religion. Rather, they merely followed the mindless traditions in which they had been raised, which in Islam meant fasting during Ramadan, praying five times a day, paying the zakat tax (mandatory alms), and declaring that "Allah is god and Muhammad is his messenger." (The fifth Islamic "pillar," that one should visit Mecca once during his lifetime, was optional—one did it "if he could.")

What changed? The Muslim Brotherhood was founded in 1928 in Egypt, with the goal of making the Qur'an and the Sunnah (the sayings of Muhammad) the "sole reference point for...ordering the life of the Muslim family, individual, community...and state."—*Steven Kull*. It took several generations, but by the end of the twentieth century, Islam—now aware of the bloodthirsty requirements of its own scriptures—had largely awakened from its state of peaceful religious torpor and had become the very personification of terror in the world—all because of what Muhammad had said and done fourteen centuries previously. The doctrine was so destructive, the Muslim Brotherhood, which advocated a return to true Islamic principles, was outlawed as a *terrorist group* in Egypt—*an Islamic nation*. (In contrast, when Christians had returned to *their* scriptures, back in the 18<sup>th</sup> and 19<sup>th</sup> centuries, the result was precisely the opposite: they became the very beacon of love and light Yahweh had intended for them to be all along, founding universities, hospitals, and missionary societies. It all says a lot about the radical difference between the Muslim and Christian scriptures—*and* who they worship.)

Real Muslims cannot safely be afforded the right to practice their religion in any civilized nation, for one simple reason: they are commanded by their scriptures to "wipe the infidels out to the last," beginning with Jews and Christians. This defines Islam not as a religion in the ordinary sense, but as a bloodthirsty and acquisitive political philosophy, like Nazism or Communism (two doctrines that, like Islam, have pronounced "religious" overtones). A true Muslim (granted, not all of them are) *cannot* coexist with people of other faiths. They *cannot* assimilate into non-Muslim societies; they *cannot* cease their relentless jihad against the world. "Peace" is defined as the state of affairs that will exist only when the whole world has been enslaved or slaughtered under Islam's sword. One cannot help to perceive the totalitarian undercurrent driving Islam's resurgence. And be aware: Muslims (mostly through prodigious breeding) now comprise almost one fifth of the world's entire population.

The other "religion" that doesn't fit FDR's "religious freedom" scenario is Atheism, whose "god" is actually man. The fact that it masquerades as "not a religion" (though it is certainly a faith-based belief system) has enabled Atheism to become, in fact, the State Religion of the United States—we who are so obsessively careful to keep church and state separate, as we should. (This is also the case in modern Europe and the Communist bloc.) The "prophet" of Atheism is Charles Darwin, whose mid-nineteenth century success in providing what seemed at first glance like a plausible alternative to the Biblical portrayal of our origins undermined the faith of millions. His theory of evolution, though riddled with unsupportable assumptions and unbridgeable scientific gaps, allowed people who didn't like the idea of a holy God (to whom we owe our very existence) to convince themselves that the Bible was all a myth: problem solved. (I find it the height of irony that Darwin's only earned degree was in *theology*.) The fact that the Genesis 1 creation account was delivered in symbolic language designed to introduce Yahweh's plan for humanity's redemption was ignored—or exploited. (It's sort of like ridiculing Longfellow's Song of Hiawatha for not being a straightforward treatise on Native American cultural anthropology.)

Here again, we see that the "freedom of every person to worship God in his own way" is a naïve and childish concept if it allows "religions" like Atheism and Islam to silence and squelch other expressions of faith in the pursuit of a twisted caricature of "tolerance." The liberal-progressive mindset, however, doesn't seem to understand such things.

(3) "Freedom from want—economic understandings which will secure to every nation a healthy peacetime life for its inhabitants." It's only natural to wish everyone to be peaceful and prosperous. Even the most cynical can calculate that "if my neighbor is wealthy, he will have no good reason to attack me." And the so-called "golden rule," which appears in some form in every culture on earth, states that if I wish to be comfortably secure (which is perfectly natural), I should desire no less for my neighbor. The problem (once again) is the liberalprogressive delusion that man is basically good—that he won't steal, murder, and rape unless driven to his crime through desperation and despair. God would disagree: "The heart is deceitful above all things, and desperately wicked. Who can know it? I, Yahweh, search the heart, I test the mind, even to give every man according to his ways, according to the fruit of his doings." (Jeremiah 17:9-10) I hate to be the bearer of bad news, but poverty (at least in the general, nationwide sense) is our own fault, the reaping of what we have sown—what we have *chosen* to sow. There is a *reason* Yahweh codified what we are to do (in the simplest of terms) in the Ten Commandments: in our fallen state, we naturally violate these principles all the time. God's admonitions to Israel in Leviticus 26 and Deuteronomy 28 made it clear that prosperity and peace would follow obedience to His Instructions; but rebellion against Him would result in poverty and conflict.

So FDR's solution to the goal of "freedom from want" was (like liberals today) to redistribute the wealth—stealing from those who had, and giving it (well, some of it) to those who did not have. The Federal income tax for the highest earners during his administration was 94% of all income over a baseline amount. (Actually, he *wanted* to tax this income at \$100!) We have already explored the pitfalls of socialism *and* capitalism: we now know that *neither* system works as intended (delivering the sort of outcome FDR sought) in the absence of reverence for God and love for those we meet in the world. The world will *never* experience freedom from want as long as these two conditions have not been met. If all of the world's wealth were taken and redistributed evenly among the entire population, all seven and a half billion of us, *everyone* would be poor (at least in their own eyes). That's why God had to go out of His way to forbid covetousness (Exodus 20:17).

(4) "Freedom from fear—a world-wide reduction of armaments to such a point and in such a thorough fashion that no nation will be in a position to commit an act of physical aggression against any neighbor." Again, it's a terribly naïve solution, given the depravity of man. Wars have been fought between nations since there *were* nations—with whatever arsenals they could muster, right down to pointy sticks and slingshots. Better weapons don't start wars—they win them, or with luck, prevent them. Even Yahshua—the Prince of Peace—suggested that His disciples ought to be prepared to defend themselves (see Luke 22:35-38). Of course, being armed to the teeth is not in itself a solution to anything—except perhaps as a deterrent to your neighbor's aggression.

Ironically enough, Roosevelt himself presided over the largest military buildup in the history of humanity—not because he wanted to, but because he *had to*, in response to Japanese and German aggression that, if nothing else, proved that mankind is unable to live in peace without Christ. One could moan, "Oh, if only Germany had be stripped of its entire capacity for military aggression after World War I." But they did very thing, as a result of the Treaty of Versailles in 1919. The outcome of the "war to end all wars" (as WWI was known) kept Germany weapons free for all of *fourteen years*. FDR, of all people, should have recognized the futility of disarmament in a world where people hate each other. If people were perfect, of course, it would be a very good thing. But people *aren't* perfect—far from it.

The principle applies to individuals as well as nations: disarmament invites aggression. While Adolph Hitler was rearming Germany's military in the mid-1930s, he was also quietly *disarming* its Jewish citizens. *Infowars.com* reports: "Bernard E. Harcourt, writing for the University of Chicago Law School and Political Science Department, notes: 'If you read the 1938 Nazi gun laws closely and compare them to earlier 1928 Weimar gun legislation—as a straightforward exercise of statutory interpretation—several conclusions become clear. First, with regard to possession and carrying of firearms, the Nazi regime relaxed the gun laws that were in place in Germany at the time the Nazis seized power. Second, the Nazi gun laws of 1938 specifically banned Jewish persons from obtaining a license to manufacture firearms or ammunition. Third, approximately eight months after enacting the 1938 Nazi gun laws, Hitler imposed regulations prohibiting Jewish persons from possessing any dangerous weapons, including firearms.' The point was, Hitler had it in for the Jews, so he first disarmed them before carrying out his murderous campaign against them. And, unable to resist, millions died."

There is a very good reason our founders made it the right of private citizens to keep and bear arms (in the Second Amendment of our Constitution). They wanted to ensure that any future American government would be utterly unable to perpetrate the sort of travesty in this nation that would happen in Hitler's Germany, with the slaughter of six million Jews who had been rendered incapable of defending themselves against tyranny. And if Hitler's tactics are as universal as they seem, *whoever* a government attempts to disarm defines who they consider their enemy—the one of whom they're afraid. If that's "everybody" then, well, you do the math.

The story is told (no doubt apocryphal) of a police officer who pulled over an elderly woman whose car had a burned-out taillight. As he had been trained, he asked her routinely if she had any weapons in the car. She replied that she had a Glock 9mm in a hip holster, a .22 on her ankle, a Desert Eagle 50-cal in the glove box, and a shotgun in the trunk—all with the proper permits, of course. Taken aback, the officer asked her, "Ma'am, what are you so afraid of?" She replied with a sweet smile, "Not a @#\$%&\* thing." Like FDR, I could *wish* nobody had weapons, but in the present age, they're apparently a necessary evil.

Abele's conclusion: "The United States has rushed headlong into a Totalitarian, if not a Fascist, regime of government-corporate control of the culture and citizens, and we are only seeing the beginnings of it, in part because the Snowden revelations are incomplete, and in part because the government is not forthcoming with just how many and how far its actions go that contradict the Four Freedoms." His point is well-taken: a totalitarian government knows that knowledge is power, so they try to restrict the dissemination of the truth, at least as far as their own oppressive actions are concerned. Hitler, through Goebbels' propaganda machine, was reasonably successful at keeping Germany in the dark—until the B-17s showed up. But it's a bit harder to keep secrets here in the information age. And even if solid information isn't forthcoming, the rumor mill still works just fine.

"But with regard to this conclusion, just because our government has the trimmings of a democracy matters not, when the fact is that regardless of who is elected, the political bureaucrats put in office tend to the interests of the ruling regime of corporations and their desire for authoritarian control of all of the information of the culture and the citizens. This is what Supreme Court Justice Ruth Bader Ginsberg no doubt at least partially had in mind when she stated that if aggregate limits on individual political contributions are not limited, then '500 people will control American democracy.' This makes U.S. elections a sham and a farce.

"Worse, it bodes ill for the immediate future, in that Totalitarian regimes are extraordinarily difficult to overthrow without a complete revolution in the mindset (i.e. worldview) of the vast majority of citizens. The obvious mindset or worldview change argued for in this article is that if we want to put the brakes on this bullet-train into headlong Fascism, we must reiterate and organize around these Four Freedoms adumbrated by Roosevelt. They are user-friendly, and nicely encapsulate the primary values for any true democracy. That change of mindset is worth re-committing ourselves to in the year to come. Unlike Obama's empty campaign rhetoric, it is truly our only 'hope' for 'change.""

I would echo Robert Abele's wake-up call, but I would caution against placing all of our "eggs" of hope in the "basket" of Franklin D. Roosevelt's ridiculously naïve "Four Freedoms," at least, this side of the Millennium. From where I sit, in fact, the very mindset that produced these four goals is *responsible* in large part for the plunge toward socialistic totalitarianism (what Abele labels Fascism) that our nation (and world) is experiencing. If we are counting on the "innate goodness of man" to make things right in the world—providing freedom of speech, freedom of worship, freedom from want, and freedom from fear—then we are doomed to disappointment, for the human race is fundamentally lost, fallen, corrupt, and sinful, even if some of us are redeemed through God's grace.

It is a terrible thing to live under a totalitarian regime ruled by such corrupt people, though most people throughout history have had to do just that, to one extent or another. It seems worse in recent days, I suppose, because today's tyrants have better, more intrusive technology—Nero had *no idea* what was going on down in the catacombs beneath the streets of Rome. The interesting thing is, his intended victims, the Christians he was persecuting, used the most advanced "technology" conceivable in their fight for survival—*prayer*: a powerful wireless connection to the Creator of the universe, unlimited in bandwidth and faster than light-speed in connectivity. Of course, Yahweh *already* knew the innermost secrets of the tyrants He allowed to rule for a time, as well as the plight of His people, but He likes to get "sit-reps" anyway—timely communication from the battle's front lines, so to speak. That being said, the "technology" of prayer is about to receive an upgrade, a quantum leap in functionality, making even the sophisticated surveillance and enforcement technology of today's tyrants look positively crude by comparison.

What am I talking about? Long before our day (or Nero's, or Nimrod's for that matter), Yahweh had already ordained that there would come a time when He would *personally* reign over the earth. The "Sabbath Principle" laid down in the creation account revealed (if we had understood its symbolic significance) that mankind would have six thousand years to work things out among ourselves, and in which to choose to love—or reject—the God who made us. After that would come a "seventh day," a final Millennium in which "totalitarianism" would be seen and experienced in a whole new light. Think about it: what will happen when God Incarnate rules the earth—the One in whom *all* authority has been vested, in whom *all* power resides, and in whom limitless knowledge of what men are doing and thinking is a constant real-time reality? How does that prospect square with the perfect, unlimited liberty we've been promised?

It seems we may have some hurdles to get over here. We've grown used to the idea (through bitter experience) that totalitarian or authoritarian governments are, by definition, bad things. This, of course, is because fallen, evil men have always been in charge, to whatever extent they could manage. It is said that "power corrupts, and absolute power corrupts absolutely." And that's true, where men are concerned. But what would happen (or should I say, what *will* happen) when He who exercises absolute power is uncorrupted and incorruptible—when unlimited power is wielded in perfect love?

That very eventuality is the climax of prophetic scripture: Yahshua the Messiah will return to us and rule Planet Earth with a rod of iron. If we were talking about anybody else (like, for instance, the coming Antichrist), that would be a very bad thing, but in the unique and final case of the Messiah's government, we'll find that, for the first time in human history, *power blesses, and absolute power blesses absolutely!* The prophet Isaiah reveals the stunning truth about the world's ultimate "totalitarian regime." He says, "For unto us a Child is born; unto us a Son is given. And the government will be upon His shoulder. And His name will be called

## Wonderful, Counselor, Mighty God, Everlasting Father, Prince of Peace. Of the increase of His government and peace there will be no end, upon the throne of David and over His kingdom, to order it and establish it with judgment and justice from that time forward, even forever. The zeal of Yahweh of hosts will perform this." (Isaiah 9:6-7)

Human tyrants invariably have their "jack-booted thugs" to enforce the will of the state: Nero had his legions and Pretorian Guard, Hitler had his Brownshirts and SS, and Obama had Acorn, the unions, his IRS agents, and EPA regulators. But what will Christ have? If His is the "ultimate totalitarian regime," how will he keep law and order among the Millennial mortals (still fallen sinners, though redeemed by the blood of the lamb—at least that first generation) and still maintain love and peace throughout the world? Are these things not fundamentally antithetical to each other? Perhaps they seem to be in a world run by fallen men (who are in turn pushed from behind by the prince of darkness). But Yahshua's rule will be just, fair, and conducive to perfect love among all men. On the "macro" level, His own presence will set the tone—and the standard. But what about individual relationships—the enforcement of perfect peace on the "micro" level, one on one?

Ready for another epiphany? I believe that the raptured and resurrected saints—now inhabiting immortal bodies like that of the risen Christ—will be responsible for "policing" the world (though I'd characterize it as more of a "mentoring" role). Did not Yahshua inform his disciples that they would judge the twelve tribes of Israel? (See Matthew 19:28, Luke 22:30.) And did not the four Living Beings and Twenty-four Elders that John saw in his heavenly vision (Revelation 5:10) reveal that the resurrected saints would be kings and priests who will reign on the earth? But unlike Christ, we were once sinners, under the curse of Adam's fall. Are we not therefore *corrupt*, thus ungualified to wield the power of our King and God upon the earth? No, not anymore, for one simple (though amazing) reason: in the resurrection, we will no longer be corrupt. Paul explains: "Flesh and blood cannot inherit the kingdom of God; nor does corruption inherit incorruption. Behold, I tell you a mystery: we shall not all sleep, but we shall all be changed-in a moment, in the twinkling of an eye, at the last trumpet. For the trumpet will sound, and the dead will be raised incorruptible, and we shall be changed." (I Corinthians 15:50-52) Now *that's* "hope and change" I can get behind.

So how does all of this compare to the best of human government—that theoretically encapsulated by Franklin D. Roosevelt's "Four Freedoms?" It won't be a democracy (or even a republic), since "one man plus God is a majority." Christ's rule will be absolute and unequivocal.

First, FDR longs for "freedom of speech and expression," but that's what got us into trouble in the first place, as far back as the Garden of Eden—the knowledge and dissemination of evil (though "good" was never a problem). During the Millennium, people will *not* be free to express hatred, or rebellion, or enticement to sin. It seems likely (though it isn't spelled out) that the Immortal Saints will be there to offer timely "course corrections" whenever such errors pop up, as they surely will. Love and edification will be taught and encouraged; animosity and oppression will not. If that sounds like repression to you, you probably won't be there.

Second, "freedom of worship" will be superseded by a palpable reality, the tangible presence of God Incarnate. Reverence of false gods, or *no* God, for that matter, will be rendered a logical impossibility. With the reigning Messiah among us, there will be no question of whom to worship. Yahweh says, "Look to Me, and be saved, all you ends of the earth! For I am God, and there is no other. I have sworn by Myself, the word has gone out of My mouth in righteousness and shall not return, that to Me every knee shall bow, every tongue shall take an oath. He shall say, 'Surely in Yahweh I have righteousness and strength. To Him men shall come, and all shall be ashamed who are incensed against Him.'" (Isaiah 45:22-24) Fine-tuned in light of the resurrection of Christ, that sentiment would read: "God also has highly exalted Him and given Him the name which is above every name, that at the name of Jesus every knee should bow, of those in heaven, and of those on earth, and of those under the earth, and that every tongue should confess that Jesus Christ is Lord, to the glory of God the Father." (Philippians 2:10-11) So religion—man's systematic search for God—will be rendered obsolete, for Christ is *Immanuel*: God with us.

FDR does a bit better with his remaining two "freedoms." The third concept, "freedom from want," will become a reality during the Millennial Kingdom, perhaps for the first time since our parents left the Garden. It will begin in Israel, and spread out from there to all the world in response to their reverence for the Messiah-King: "Mercy and truth have met together; righteousness and peace have kissed. Truth shall spring out of the earth, and righteousness shall look down from heaven. Yes, Yahweh will give what is good, and our land will yield its increase." (Psalm 85:10-12) "Behold, the days are coming,' says Yahweh, 'When the plowman shall overtake the reaper, and the treader of grapes him who sows seed. The mountains shall drip with sweet wine, and all the hills shall flow with it." (Amos 9:13) I should point out, however, that whereas Roosevelt thought freedom from want could be achieved by taxing the rich and redistributing the booty to the poor, Christ does it by blessing the earth and its people so bountifully that no one who honors Him will ever lack for any good thing. I trust you can perceive the difference.

Fourth, FDR's "freedom from fear" was predicated on disarming the world a tactic that cannot succeed (as he himself discovered) as long as evil men are allowed to "express themselves" in the world. But under Messiah's reign, **"Yahweh** shall judge between the nations, and rebuke many people. They shall beat their swords into plowshares, and their spears into pruning hooks. Nation shall not lift up sword against nation, neither shall they learn war anymore." (Isaiah 2:4, cf. Micah 4:3) As we saw above, war has become ridiculously expensive (not that it was ever anything but a colossal waste of money). Imagine the financial benefit to be gained (never mind the human consequences) by eliminating war from the repertoire of human endeavors. What will it take to pull it off? Nothing short of the ultimate totalitarian rule—in the hands of the Son of God.

Unlike so many of the "doomsday" factors we can perceive converging upon the fourth decade of the twenty-first century, no one can see the reign of Christ approaching. Rather, it will come upon the world unexpectedly and suddenly, like a thief in the night. The only reason we believers *know* it's coming is that it was prophesied in holy writ—in so many places and so many ways it can't be ignored by anyone familiar with the Bible. What we *can* see coming is the trend toward totalitarian human government—more and more power being wielded by fewer and fewer hands. Personal freedom is being attacked on every side, a little here, a little there, like a house slowly being devoured by termites. How ironic it is that perfect liberty will only become a reality under the most totalitarian government of all—the coming thousand-year reign of Yahshua the Messiah.

Until then, we are faced with an ever diminishing degree of freedom. It is being taken away from us because we have not used our liberty responsibly: we have, for all intents and purposes, *asked* to be imprisoned for our own safety or comfort. Part of it is laziness: lions in a zoo don't have to go through the tiresome and dangerous exercise of hunting wildebeests or water buffaloes. Part of it is irrational fear: we're afraid of people whom we think are more evil than we are, so we outsource our protection to hired government thugs. Part of it is greed: half of us pay no taxes, accepting more and more government assistance (paid for by the *other* half of the populace) in exchange for granting more power to those holding the purse strings. But *all of it* is due to a failure to trust Yahweh our Creator to provide our needs, our security, and our liberties.

Author Ayn Rand often described the character of the days in which we now find ourselves: "We are fast approaching the stage of the ultimate inversion: the stage where the government is free to do anything it pleases, while the citizens may act only by permission; which is the state of the darkest periods of human history, the stage of rule by brute force." She also said, "When you see that trading is done, not by consent, but by compulsion; when you see that in order to produce, you need to obtain permission from men who produce nothing; when you see money flowing to those who deal, not in goods, but in favors; when you see that men get richer by graft and pull than by work, and your laws don't protect you against them, but protect them against you; when you see corruption being rewarded and honesty becoming a self-sacrifice, you may *know* that your society is doomed."

Doomed it is, Ms. Rand. But we are not without hope. The triumph of evil in this world will not be its end, but merely the end of the beginning.

## The Trend Toward Globalism

Many have dreamed of it, and a few even attempted to achieve it metaphorically, at least: a worldwide government, a kingdom of kingdoms encompassing all of humanity under one all-powerful ruler. Nimrod tried it, as did Nebuchadnezzar II, who was quite accurately called "a king of kings" by Yahweh's prophet Daniel. Alexander of Macedon is said to have wept when he perceived that there were no more worlds to conquer (a sentiment that, of course, fell somewhat short of reality, even though he had been spectacularly successful). There is no indication that Adolph Hitler would have been satisfied with Europe, Russia, and North Africa had he been successful in consolidating his gains: he had his eye set on the whole world, and he had no intention of stopping until somebody stopped him.

But the Bible speaks prophetically of *two* truly global empires, appearing one right after the other, that will be established during "the last days." Two "world leaders" will actually achieve what so many have tried—and failed—to do in the past: rule the entire planet. These leaders' personalities, agendas, and methods are as different as night is from day, and yet they have one or two things in common. It would behoove us to determine what these points of commonality are, for the trend in our world today is toward globalization—the subjection of peoples and nations to increasingly large and powerful regional federations and worldwide organizations, wresting control away from individuals and local governments and placing it in the hands of centralized powers.

First, the Antichrist (or "the beast from the sea"), reigning during the Tribulation (and specifically, during the second half) is prophesied to reign uncontested over a worldwide empire: "So they worshiped the dragon who gave authority to the beast; and they worshiped the beast, saying, 'Who is like the beast? Who is able to make war with him?' And he was given a mouth speaking great things and blasphemies, and he was given authority to continue for forty-two months. Then he opened his mouth in blasphemy against God, to blaspheme His name, His tabernacle, and those who dwell in heaven. It was granted to him to make war with the saints and to overcome them. And authority was given him over every tribe, tongue, and nation. All who dwell on the earth will worship him, whose names have not been written in the Book of Life of the Lamb slain from the foundation of the world." (Revelation 13:4-8) Two Greek words describe the Antichrist's domain here. "Earth" is the Greek *ge*, meaning earth or land—with emphasis on the inhabited parts of it (or the inhabitants themselves). "World" is *kosmos*, literally denoting "an ordered system" (such as our planet).

The clear implication is that this "man of sin" will exert sovereign control over the whole enchilada.

But then, we read of a second world leader taking the reins of the whole planet. "I was watching in the night visions, and behold, One like the Son of Man, coming with the clouds of heaven! He came to the Ancient of Days, and they brought Him near before Him. Then to Him was given dominion and glory and a kingdom, that all peoples, nations, and languages should serve Him. His dominion is an everlasting dominion, which shall not pass away, and His kingdom the one which shall not be destroyed." (Daniel 7:13-14) Or, "Then the seventh angel sounded: And there were loud voices in heaven, saying, 'The kingdoms of this world have become the kingdoms of our Lord and of His Christ, and He shall reign forever and ever!'" (Revelation 11:15) This, of course, is Yahshua, Yahweh's Anointed One, who will rule Earth for a thousand years (Revelation 20:4) and then continue His reign over a new heaven and new earth for all of eternity. If my arithmetic is correct, this would beat the Antichrist's pitiful little three and a half years of blasphemous brutality by what mathematicians call "a lot."

But as I said, there are several parallels between the reigns of the son of perdition and the Son of God (which only makes sense, because the former is a counterfeit of the latter).

(1) In order to wield authority over the whole world, one needs to be "worshiped," as if he were a deity—i.e., be genuinely popular, receiving unfeigned universal acclaim and obeisance. He'd have to be (or at least *pretend* to be) what the Jews would call a "Messiah." In other words, one can't really expect to achieve this supreme status through force of arms, intimidation, or pressure alone. In the end, he'd have to persuade the vast majority of mankind to *choose* him as their leader—even to hail him as their "god." There is just too much latent free will (or moral independence) endemic in the human spirit (thanks to Yahweh's design) to enslave the entire human race through brute force alone. To achieve worldwide domination in the absence of compulsion, the leader (whichever one you're talking about) will have to be popularly acclaimed, chosen through the people's own volition, whether wrong or right. (That being said, of course, Yahshua will rule simply because it is His right as God Incarnate.)

How does the present push toward global governance reflect this principle? When considering the "worship" factor, one must factor in who is doing the pushing—for there are several competitors in the field at the moment. Secular humanists (a.k.a. atheists) worship *man*—that is, their "deity" is not what most people would consider a "god" at all in the ordinary sense. This is precisely how the Antichrist is described by Daniel: "Then the king shall do according to his own will: he shall exalt and magnify himself above every god, shall speak blasphemies against the God of gods, and shall prosper till the wrath has been accomplished; for what has been determined shall be done. He shall regard neither the God of his fathers nor the desire of women, nor regard any god; for he shall exalt himself above them all. But in their place he shall honor a god of fortresses; and a god which his fathers did not know he shall honor with gold and silver, with precious stones and pleasant things." (Daniel 11:36-38) So today's secular humanists are, ironically enough, preparing the world for the Antichrist's "religion."

It's no particular secret that there is a group of powerful and influential people who have been working behind the scenes for a couple of centuries to shape the world's agenda to their liking (and for their profit). Conspiracy theorists like to call them "the Illuminati," though the Bible uses a broader, more inclusive term: Babylon (of which the Illuminati seem to be a significant component). Their goals are more or less in line with garden variety secular humanists, but their "gods" are not mankind in general (in lieu of an Almighty Creator-God), but they themselves-again, an echo of what is revealed concerning the coming son of perdition. In their case, they covet what "a god" presumably has: all power, wealth, resources, and control. It was my conclusion (you may recall) that these behind-the-scenes puppet masters will recruit and establish the Antichrist as a focal point for the world's worship, envisioning him to be their own front-man or figurehead: the final puzzle piece in their scheme to achieve total world domination. The Bible hints that they will be as surprised as anyone when "their boy" turns on them, and with Satan's help, takes over their entire scam. The prophet reports: "When the transgressors [every permutation of Babylon] have reached their fullness, a king shall arise, having fierce features, who understands sinister schemes. His power shall be mighty, but not by his own power. He shall destroy fearfully, and shall prosper and thrive. He shall destroy the mighty." (Daniel 8:23-24) And John says (of the Antichrist's allies), "These will hate the harlot [financial Babylon-the Illuminati, if you will], make her desolate and naked, eat her flesh and burn her with fire. For God has put it into their hearts to fulfill His purpose, to be of one mind, and to give their kingdom to the beast." (Revelation 17:16-17) Oops. If you're going to operate a puppet, make sure he can't cut his own strings and strangle you with them.

The wild card, however, is Islam. Islamists envision taking over the world by breeding themselves into a worldwide majority. They (i.e., nominal Muslims) already number one out of every five souls on the planet—and they're gaining ground in the demographics department. This is the height of irony, for several reasons. First, Muhammad taught (as recorded in the Hadith of al-Bukhari) that the total capacity of paradise is only 70,000 souls, which means, *according to their own scriptures*, that the vast majority of Muslims will of necessity be consigned to eternal hell fire (the only other eternal destiny in Islamic theology).

Second, liberals and progressives (whose own agenda, as we have seen, involves *reducing* the earth's population by 90-95% in order to "save the planet")

generally support Muslim political causes (like the "plight" of Palestinian Arabs who want to seize the land of Israel for themselves). The alternative, after all, would be to align themselves with the Judeo-Christian agenda, which is an anathema to the liberal mindset because it asserts that there is an absolute standard of right and wrong. So in reality, the liberals' chosen *cause celebre* is their own worst nightmare, though they can't seem to see it.

Third, the worship of Allah presupposes adopting the mindset and method of Muhammad (again, as revealed in Islam's own scriptures)—in which progress was achieved through plunder and expansion, not hard work and creative problem solving. Thus if they ever do achieve their dream of world dominance, they will find themselves with no one left from whom to steal: the parasite will have finally killed its host, and will subsequently be able to extend its life only by attacking itself—geopolitical cannibalism.

Don't be surprised that the worship of the world—that which will eventually be brought into focus on the Antichrist—is at war with itself. Both (or should I say, *all*) of its permutations are driven by Satan's agenda—the destruction of man. The devil apparently doesn't really care which "religion" wins, for any display of hatred among men is a win for him.

(2) In order to be seen as a "Messiah," the world leader will have to offer (or be perceived as offering) what virtually every sane person wants—peace, prosperity, security, and freedom—and have some plausible scheme for delivering on his promises. The desire for these things is hard-wired into the collective human soul, for we are made in the image of God. It seems to me, the reason they're so rare in today's world is that rather than trusting their Creator, most people assume that in order to procure these things for "me," they must be taken away from "thee." Marx called it a "class struggle." God calls it covetousness, born of unbelief. So as the old saying goes, you can catch more flies with honey than you can with vinegar: the Antichrist will tap into the same universal human longings that compel people to choose Yahshua. But beware: one of them is lying to you.

This second factor—the universal desire for peace, prosperity, security, and freedom—is also pushing us toward global governance today. It is reflected in the somewhat desperate attempts of governments throughout the world to give their citizens the *appearance* of what they want without actually doing what it would take to solve their problems—something that would involve the government getting out of the way and letting people live their lives: *horrors!* Although the historical pendulum swings back and forth, the current trend worldwide is bigger, more intrusive government, the formation of regional or cultural alliances with ever-increasing authority over their member nations, and the surrender of individual national prerogatives to overarching coalitions—most notably the

United Nations. So the trick is convincing one's citizens that it's all for the common good—the quintessential socialist mindset.

In practice, the process of appearing to "give the people what they want" invariably involves counterfeiting values. People want "peace." So governments give them the absence of war—at least in their own backyards. Wars that *are* being fought are marketed with patriotic-sounding phrases such as "peace keeping" or as "defending freedom in the world." The citizens gradually begin to view war as something that happens to other people in god-forsaken places on the other side of the world—not here at home. Eventually, even when your own nation's troops are fighting and dying, it is seen not as a personal tragedy by most, but more like a TV miniseries—distant, detached, and not quite real.

People want "prosperity," so governments make a show of taking wealth away from the relatively rich and redistributing it to the relatively poor. No one seems to realize that the poor haven't gotten any richer in the process—or that the net effect is that the poor no longer have any incentive to do whatever the rich did in order to get rich in the first place. Meanwhile, the uber-rich live pretty much as they always did, while the productive though struggling middle class bears the brunt of the government sponsored larceny.

People want to feel secure, so they give governments the authority to protect them from their neighbors with a myriad of police agencies with overlapping and conflicting jurisdictions. What they fail to realize (until it's too late) is that even after their local, city, county, state, federal, and international law enforcement and surveillance agencies have completely permeated their culture, they still won't have experienced any particular improvement in personal security, and indeed, their police will have put *them* under a microscope (which, while not necessarily evil in theory, can be in practice).

People want "freedom," but not at the expense of their security, prosperity, or peace. There is a fine line, after all, between liberty and anarchy. So they accept a trade-off—a little less freedom in exchange for a little more security. It seems to me they should have heeded the words of America's most erudite Founding Father, Benjamin Franklin: "Those who surrender freedom for security will not have, nor do they deserve, either one." The current longing for a risk-free society is to my mind not only doomed to failure, it betrays a fundamental unwillingness to trust God for our well-being: it is *in itself* a "false god."

Think about it: an animal in a zoo has total security, but no freedom. An animal in the wild has no security, but total freedom. In a recent survey, nine out of ten animals said they'd rather be free than secure. Why? Because their Creator is infinitely more trustworthy than any zookeeper. What do animals know that we don't? Or think of it this way: in prison, the most "secure" place you can be is in solitary confinement, but prisoners still see "the hole" as punishment, not reward. (3) I don't know if it's a coincidence or a logical necessity, but it seems that both of these prophesied worldwide leaders will step into power vacuums (created, to some extent, by their own actions). The Antichrist will ascend to the throne of Earth only after the political and financial infrastructure of the world has been utterly decimated through war, famine, disease, "natural disaster," anarchy, and his own machinations—all of which will take place after the church has been removed from the scene (and with it the restraining influence of the Holy Spirit).

But three and a half years of administration by the Antichrist (and the demon who indwells him) will leave the earth infinitely worse off than it was when he took over, as bad as that was. The only thing capable of preventing the total extinction of the human race will be the timely return of Yahweh's Messiah, Yahshua—who will subsequently cast the Antichrist into the Lake of Fire, and then eliminate those who followed him. But this termination of the "goats" (see Matthew 25:31-46) *won't* merely be an incentive for the "sheep" to toe the new line from that point on—for the simple reason that all of these survivors of the Great Tribulation will *already* have made their choices as to which "shepherd" they wished to follow: that's what defines them as being members of one group or the other.

The trend toward global governance today explains this "power vacuum" phenomenon, to some extent. As more and more authority is siphoned off from individuals and local government and transferred to the higher orders, the power structure becomes top heavy, to the point that if the government "loses its head" (so to speak) civilization runs the risk of being plunged into anarchy and chaos. As long as humans are human (i.e., fallen), the more power resides at the top, the more unstable a government will be, the more inefficient it is, and the more incompetent or venal its functionaries become. That's why America's founders tried to limit the power of the people running our federal government. Well, it worked for a little while.

That's also way God designed human civilization (if the Torah is any indication). Volition and responsibility resided primarily at the individual level. A man's circumstances and behavior were between him and his God, with the occasional assistance of the priests and Levites. If a problem arose, the local community addressed it, following Yahweh's guidelines. Only in dire circumstances or in times of joyous celebration were the tribal or national levels of government (such as they were) to be brought into play. Under normal (or should I say, "ideal") circumstances, in fact, the "nation" was in view only when all of Israel came together (three times a year) to keep Yahweh's holy appointments—at Passover, Weeks, and Tabernacles.

Compare that to the top-heavy hierarchy toward which we—the whole world—is headed. As options and accountability are removed from individuals and placed in the hands of middle-level bureaucrats (who are answerable to the powerful elite class occupying positions of power above them), incompetence, graft, and inertia become the rules. For the bureaucrats, serving the public—doing the work of seeing to it that civilization runs smoothly—all too often takes on a secondary role. Job Number One becomes "covering one's assets." If they perceive themselves as serving those "above them" on the org chart, rather than the ordinary citizens who form the base of the power pyramid, they will find themselves doing the wrong things, for the wrong reasons. This is equally true whether one is the local dog catcher or the Attorney General of the nation.

One telling example: the TSA employs over 58,000 people, ostensibly to keep folks "safe" when traveling. But a recent article stated that while four hundred of their agents had been caught stealing from the public they were sworn to protect, *not one* terrorist had been apprehended. Stories could be multiplied *ad infinitum* about "public servants" serving only themselves (or worse, their job superiors) while acting as bullies and thieves toward individual citizens. This is not only an American phenomenon, of course—it happens everywhere Yahweh's law of love has been abandoned. Power corrupts.

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Just because it's a bad idea, there's no reason to suppose that the powers that rule the earth (both on the thrones and behind them) will not continue to push for overt global governance in the hands of a small, powerful elite class. Whether you prefer to call it a one-world government or the New World Order, whether it will end up being administered by the United Nations or some other global entity, this sort of concentration of power has been the recurring dream of megalomaniacs for millennia. It is as yet unclear to what extent they will succeed. But even if they achieve their fondest goals, their dream regime will be swallowed whole by the Antichrist in (by my watch) the spring of 2030.

To the casual observer, it would appear that the current trend toward global government is merely a natural outgrowth of the phenomenon of globalization, which *Wikipedia* defines (somewhat pedantically) as "the process of integration across world-space arising from the interchange of world views, products, ideas, and other aspects of culture. Advances in transportation and telecommunications infrastructure, including the rise of the telegraph and its posterity the Internet, are major factors in globalization, generating further interdependence of economic and cultural activities." Interesting: that's more or less what the angel said to Daniel when his head was swimming after having been given prophetic insights that wouldn't be comprehensible for another twenty-five hundred years—our

time: "But you, Daniel, shut up the words, and seal the book until the time of the end; many shall run to and fro, and knowledge shall increase." (Daniel 12:4) According to this, the "time of the end" is now upon us. Only recently—during the past few decades—has technology caught up with man's lust for power.

But I would suggest that, appearances aside, the desire for global governance is *not* merely an artifact of better communication and transportation, nor of the world's newfound "interdependence of economic and cultural activities." I believe, rather, that it has been on Satan's agenda from the very beginning, when he said in his heart, "I will ascend into heaven; I will exalt my throne above the stars of God. I will also sit on the mount of the congregation on the farthest sides of the north. I will ascend above the heights of the clouds; I will be like the Most High." (Isaiah 14:13-14) It is only the technological revolution of the past half-century that has given fallen man the opportunity to make Satan's dream a reality. Good news; bad news.

In every conceivable way, the world has become a "smaller place." As nationstates become corrupt and begin to disintegrate (morally, ethically, spiritually, and financially), while at the same time "many run to and fro" (whether physically or electronically), it is only natural to ponder why the world's people can't seem to see eye to eye on such matters as wealth and finance, security, trade, agriculture, the environment, human rights, property rights, gender inequality, health care, population control, education, deforestation, air, water, and land quality, energy issues, and border security. The essence of globalization is the idea that people in America face more or less the same challenges as they do in France, or Kenya, or Sri Lanka. And to some extent, this is true today, as never before.

But that begs the question: must everyone think and act the same way about how to solve those challenges? Can one code of law work equally well for everyone—Christian, Muslim, Humanist, and Hindu? Must all national borders be abolished in an attempt to impose a common culture upon the citizens of the world—a sort of global *pax romana*? Should all wealth be spread evenly across the globe—or is it only *opportunity* that should be made equal? Are individual responsibility and initiative still valid factors in determining someone's level of prosperity? Does individual free will still mean anything in this world?

It should be obvious (but apparently it isn't) that making the world's culture, politics, and opportunity artificially homogeneous while men are still constrained by their sinful natures is a formula for catastrophe. Of course, that is not to say the Antichrist won't attempt to do that very thing. But all of these factors will have to be reconsidered in a new light when King Yahshua assumes the throne of planet Earth—starting over (as in the days of Noah) with a clean slate, a world in which *no one* is in rebellion against his Creator.

Technically, "global governance" is not the same thing as global *government*. But the former inexorably leads toward the latter. Global governance may be defined as "the complex of formal and informal institutions, mechanisms, relationships, and processes between and among states, markets, citizens and organizations, both inter- and non-governmental, through which collective interests on the global plane are articulated, duties, obligations and privileges are established, and differences are mediated through educated professionals."— Thomas G. Weiss and Ramesh Thakur (in *The UN and Global Governance: An Idea and Its Prospects*). That is, global governance is comprised of laws, rules, or regulations imposed by an elite social class upon everyone else. It is intended for use on a global scale—whether or not an actual worldwide *government* is in place. Nation-states are being asked (or compelled) to surrender some of their sovereign prerogatives to a conclave of foreign powers who have come to a consensus on certain issues of global importance—whether they like it or not, and whether or not the world's collective opinion is in their individual best interest. It is structured to *look like* democracy on a global scale, but that's an illusion: the elite "educated professionals" are calling the shots and manipulating the votes.

Of course, anyone who knows the first thing about how human nature works in the real world will realize that such "laws" without an enforcement provision will be taken as mere *suggestions* by anyone who stands to be disadvantaged by them. Force is the key to compliance. That's why the United Nations gained a foothold in the world where its predecessor the League of Nations failed. As Muhammad was fond of saying, "He who fears will mind." In the end, "Let's all just get along" is never taken quite as seriously as "Get along, or we'll kill you."

At issue is how much actual authority the global governing body (e.g., the United Nations) should have. Over what "internal" concerns do they feel justified in exercising hegemony? Rare is the bureaucrat who feels that most decisions should be left in the hands of individual citizens. Rather, they tend to believe (and I'm giving them the benefit of the doubt here) that a wise and benevolent central authority—*them*—is in a better position to know what's best for everyone concerned. The cynic, of course, would note that the most horrendous crimes in human history have been perpetrated in the name of "the common good." Humanity could be perfect, were it not for all the humans.

Perhaps the most obvious (or at least the most widely recognized) issue is the environment, which after all, doesn't respect political boundary lines. Air pollution generated in China eventually floats through American skies; radioactive waste water pouring into Japanese territorial waters from the damaged Fukushima power plant will ultimately poison the entire Pacific Ocean. But assuming that an authoritarian central governing body had the technological capability of preventing such problems (which is something you can't really assume), the question remains: how much weight should they be able to throw around? One could decree, "No more coal-fired electricity generation—it's bad for the air," but if compliance with the wishes of the international green police sent your own civilization back to the eighteenth century, or caused thirty percent of your populace to freeze to death, you may come to consider the price of obedience "too high."

I'm not saying the globalists don't have a point, however. We have already seen (in a previous chapter) that fully *half* of the anthropogenic carbon dioxide generation in the world today is due to the clearing of rainforests and re-tasking the land. The reason nothing is being done to stop the practice is that it's not in the short term interests of the individual governments who are allowing it within their borders. The rape of the rainforests is sometimes the only thing preventing starvation and/or revolution.

Of course, this whole line of reasoning depends on faith in a long string of questionable (or flat-out wrong), assumptions: (1) that there is no caring Creator-God monitoring the health of the planet's ecosphere; (2) that the planet is warming, melting the polar ice caps, causing the seas to rise; (3) that man-caused atmospheric CO<sub>2</sub> is causing most of this global warming; and (4) that in order to save the world, the humans must be prevented from polluting, whether through total governmental control or through genocide. *We must save the human race, even if it entails killing most of the humans. It's for their own good.* As Jeff Rothschild, Illuminati darling and Facebook co-founder, put it, "In order to finalize the New World Order process, we need a Third World War to exterminate 90% of the global population. This will resolve the problem of human population, as well as put an end to civil disobedience. We will then proceed to automize industry and create a globalized feudalist system in the name of saving our planet."

Of course, global governance (or for that matter, global *government*) means different things to different people. The secular humanist elites envision a sort of green utopia, in which a benign, all-powerful central government protects and provides for everyone's needs, in exchange for total, unquestioned obedience. Islam's ideal world, surprisingly enough, has many of the same goals—total, unquestioned submission to an all-powerful central government (called a Caliphate). The one obvious difference, of course is that instead of secular government, everybody must bow before Allah and his messenger—or at least the people who claim to represent them, since Muhammad is dead, and Allah is nonexistent.

Surprisingly, those goals are roughly parallel to what *Christians* someday hope to see: the unquestioned worldwide reign of our King of kings, Yahshua the Messiah, ruling over the nations with a rod of iron. (Faithful Jews hold the same hope, but they don't realize who the Messiah is—*yet*.) But on second thought, this shouldn't be "surprising" at all, for the atheist's New World Order and Islam's revived Caliphate are both *counterfeits*—satanic imitations of the Messiah's prophesied Millennial kingdom age. We should know by now that Satan doesn't have an original bone in his body.

As so often happens, we can learn something valuable by studying the replicas and the real thing side by side (not the least of which is that not all utopian schemes are created equal). The similarities are fascinating. (1) All three systems (and leaders) are prophesied in the Bible. (2) All three are said to have aspirations of ruling the world, and will succeed, to varying degrees. (3) All three are said to be led by charismatic individuals, the atheists' Antichrist, the Muslims' Mahdi, or "twelfth imam" (known in scripture as Gog), and Yahweh's Messiah, the risen Yahshua. (4) All three are expected by their followers to reign in Jerusalem. No wonder Zechariah called it a "cup of trembling."

Global government is coming; it merely remains to be seen who will be "in charge" of it. I think you know where I stand on that issue—not that any of us gets to *vote* on the ultimate disposition of our planet. The "back door" to a one-world government will be global *governance*—the insidious surrender of a people's sovereignty over small issues, one by one, nation by nation, to some ostensibly benign collective entity like the United Nations. If Satan has his way, the human race will wake up some morning in the near future to discover that we have no meaningful freedoms left. Our idiot leaders will have sold them for a bowl of red porridge, following in the footsteps of Esau, who despised his birthright, earning himself the dubious distinction of being the only man in the Bible whom God ever said He "hated."

Once that event horizon has been reached, one little puff of wind will be enough to collapse this house of cards we call human civilization. Illuminati "made man" David Rockefeller warned us, "We are on the verge of a global transformation. All we need is the right major crisis, and the nations will accept the New World Order." In these last few chapters, we have reviewed scores of factors that could easily become "the right major crisis," and all of them are poised to precipitate their various calamities—during or before the fourth decade of the twenty-first century.

My guess, however, is that the linchpin of the human experience will turn out to be the Spirit-indwelled church, and the "right major crisis" destined to bring the New World Order to center stage will be the rapture, the "catching away" of Christ's followers, both alive and dead, to meet Him in the air.

We won't be mourned. But will we even be missed?

Appendix 9 Secular Chronology Confirmation

How current trends corroborate the Bible's revealed timeline

## **ENERGY ISSUES**

With the rather sudden (in the last century or so) increase of world population, technological advancements, and mobility, the earth is experiencing a challenge it has never really had before: how to meet its ever-expanding need for energy without destroying itself in the process.

It used to be, one merely needed some sort of combustible material to bake his bread, heat his home, or light his way at night. It was the original "flex-fuel" situation: anything would do, as long as you could set it on fire. Wood (or its derivative, charcoal) was an obvious choice, but any sort of dead vegetation would work in a pinch. For settled cultures in temperate climates, olive oil made a good liquid fuel, perfect for use in lamps. The Bible also speaks of using thorns, vines, and even dung for fuel. (Early settlers on the American prairies found no trees to burn, but a practically endless supply of dried buffalo poo, which burned quite nicely in a cast iron stove.) Where it was available, coal or peat were mined and used as household fuels.

By the dawn of the twentieth century, very little had changed. The industrial revolution of the previous century had been fueled with coal, along with wood from ever-shrinking forests. Short blips of "alternative fuels" like whale oil, or gas for artificial lighting (hydrogen, methane, carbon monoxide, propane, butane, acetylene, ethylene, or natural gas) came and went. But change was in the wind. In the 1860s and throughout the remainder of the century, inventors like Lenoir, Benz, Otto, Diesel, Daimler, and Maybach (among others) worked to make the internal combustion engine a working reality—and it was made accessible to the common man a bit later by the likes of Henry Ford and Ransom Olds. Petroleum—gasoline—was suddenly the fuel of the future, and Daniel's prophecy about people "running to and fro" in the last days was now on the cusp of fulfillment as never before.

At the same time, stunning advances were being made in the utilization and transmission of electricity. Inventors like Edison, Westinghouse, and Tesla prepared the world for the electronically connected, technology-dependent reality in which we live today. These discoveries allowed the *second half* of Daniel's (12:4) prophecy—that "knowledge will increase"—to come to fruition. Today, we

live in the so-called "information age," in which (according to Moore's law) the amount of data available to us is doubling every eighteen months. In light of the fact that everything we ever needed to know about life and godliness had been revealed in Yahweh's scriptures thousands of years ago (see II Peter 1:3), I find it a little disturbing that some thirty percent of the immense amount of data transferred on the Internet these days (according to the *Huffington Post*) is pornography (and I suspect most of the rest is either pointless drivel, data bereft of badly needed spiritual context, or pictures of kittens). But then again, I wouldn't have known about any of that were it not for Google. The Internet can teach you how to make a bomb or bake a cake—it doesn't care how you use it. In other words, the technology itself is spiritually neutral—it can be used for good or evil.

But what it *can't* do is run without electricity—which must be generated with machines that consume fuels like coal, oil, natural gas, or radioactive materials, or employ "renewable" energy from places like hydroelectric sites, solar installations, or wind farms. Of course, our computers and cell phones consume comparatively little energy. The biggest energy hogs within our homes are the appliances that heat or cool things—forced air furnaces, water heaters, dryers for our clothes and hair, coffee makers, refrigerators, freezers, and air conditioners. We run so many lights, our cities can be seen from outer space at night. Our industrial and cultural (i.e., not personal) need for electricity is prodigious as well—consuming over half of the total energy produced.

And the world's projected need for energy is not tapering off or leveling out. Rather it is keeping pace with the steady growth of the earth's population (which, you'll recall, will, if the present trends continue, reach nine billion souls by the fourth decade of the twenty-first century). *EIA.gov* reports, "The International Energy Outlook 2013 (IEO2013) projects that world energy consumption will grow by 56 percent between 2010 and 2040. Total world energy use rises from 524 quadrillion British thermal units (BTUs) in 2010 to 630 quadrillion BTUs in 2020 and to 820 quadrillion BTUs in 2040." A BTU is the equivalent to about 1,055 joules. It is the amount of energy needed to cool or heat one pound of water by one degree Fahrenheit. The BTU is most often used as a measure of power (as BTU/hour) in the power, steam generation, heating, and air conditioning industries.

Considering how much energy (in whatever form) the world needs, the trick now seems to be figuring out how to deliver the power without killing the planet. The problem is that every energy source now in use has a fatal flaw, either in its production, its usage, and/or its delivery. The top three (by far) energy sources all contribute to the rise in atmospheric carbon dioxide levels (which the politically driven scientific community *swears* is going to result in the death of us all. Liquid energy sources (i.e., petroleum-based) produce 180 quadrillion BTUs annually at present (mid-2014); coal delivers 160; and natural gas provides 120.

Interestingly, although CO<sub>2</sub> levels have indeed been rising, the dreaded global warming phenomenon that was supposed to automatically result has *not* materialized. In fact, while world coal usage nearly *doubled* between the mid-1990s and the present, the arctic ice cap *expanded* by a million square miles: the earth is *not* warming because of coal use—which is not to say coal is the ideal fuel in its present state of technology. One more thing worth noting about coal: it does little good for one nation to curtail its use (as in America's recent war on coal) if other countries continue burning it with gleeful abandon. Coal-rich America has reduced its own CO<sub>2</sub> emissions output to 1992 levels, but our efforts are negligible in the face of prodigious coal usage in China and India, who are still (as we once were) more concerned with growing their wealth than with being able to breathe.

Meanwhile, "renewable" energy sources (hydroelectric, solar, wind, geothermal, etc.) together account for about 70 quadrillion BTUs annually, and nuclear power comes in last, generating about 30 quadrillion BTUs. Although the "green lobby" is adamantly opposed to *any* energy source that burns *any* kind of fuel, they don't particularly like hydroelectric power, either. Although this is the most demonstrably successful form of renewable energy there is, it requires damming rivers, altering topography, and displacing human and animal populations—in other words, *change*. For all their Mother-Earth worship, they apparently have precious little faith in "her" ability to adapt and survive. How in the world did "Mother Nature" get along without them for the past four billion *years?* Hydroelectric power plants are responsible for sixteen percent of global electricity generation worldwide, and for 66% of the renewable energy produced in the United States. There are many major dam projects underway (notably in China, India, and Brazil), but the environmentalists have managed to quash virtually all new hydroelectric endeavors in the United States since the 1970s. This is known as "progress." I don't know why.

Other "green" technologies have proven laughably inefficient or unreliable in practice. Solar power generation is fine as long as the sun shines and the wind doesn't blow much. On the other hand, wind turbines are *only* as reliable as the wind (which *isn't*, particularly), and they have done more damage to endangered bird populations (especially eagles) than all the DDT Rachel Carson ever heard of. What can be done? Throw the eagles under the bus, of course: The *Associated Press* reports, "Under pressure from the wind-power industry, the Obama administration said [in December, 2013] it will allow companies to kill or injure eagles without the fear of prosecution for up to three decades." So much for protecting the environment with green energy.

"The new rule is designed to address environmental consequences that stand in the way of the nation's wind energy rush: the dozens of [endangered] bald and golden eagles being killed each year by the giant, spinning blades of wind turbines. An investigation by The Associated Press earlier this year documented the illegal killing of eagles around wind farms, the Obama administration's reluctance to prosecute such cases and its willingness to help keep the scope of the eagle deaths secret. President Barack Obama has championed the pollutionfree energy, nearly doubling America's wind power in his first term as a way to tackle global warming. But all energy has costs, and the administration has been forced to accept the not-so-green sides of green energy as a means to an end." I don't know whether to laugh or cry. But crying seems more appropriate in light of the hypocrisy and duplicity of our so-called "leaders."

And what about nuclear power? Back in the 1950s, it promised to be the panacea to all of the world's energy woes—the gateway to a clean, cheap electrically powered future. (And we got to make nifty doomsday weapons out of the used atomic fuel—bonus!) But now, with the Three Mile Island accident (1979), the Chernobyl disaster (1986), and the Fukushima Daiichi catastrophe (2011) in our rear view mirrors, our nuclear-powered future doesn't look quite so promising. (In fact, that label they put on car mirrors saying "Objects are closer than they appear" applies ominously to Fukushima—which is *still* pouring radioactive water into the Pacific Ocean years after the incident, threatening to slowly kill off all life in the sea—see Revelation 16:3.) There have been at least a hundred serious nuclear incidents or accidents worldwide since 1952—58 of them *after* Chernobyl.

The bottom line, then, is that at present, there is no energy source available to man that doesn't come with serious drawbacks. They're either environmentally unhealthy to produce, expensive to procure, dangerous to deliver, poisonous to utilize, or laughably inefficient. Sometimes, it's "all of the above."

The cries for "renewable energy" aren't *all* leftist propaganda designed to destroy the artificially prosperous lifestyles that were the legacy of evil capitalist endeavor, of course. Just because liberal-progressive politicians have been willing to waste hundreds of billions of other people's dollars on hopeless green energy boondoggles, it doesn't necessarily follow that the *need* for such energy breakthroughs isn't there. The fact is, there *are* limits to what we can take out of the earth. I've been hearing since the early 1970s that "the Earth is about to run out of energy." Dire predictions of "peak oil" (in which all of the easily obtained petroleum deposits on the planet have been drained dry, leaving only poor quality, hard-to-get resources) have so far proven premature—or at least, oil-drilling technology has kept pace with demand so far.

But even when vast new energy sources are discovered, the "good news" is invariably stated in terms something like this: "This new find will produce enough natural gas (or whatever has been found) to power our homes for the next hundred years." That is, even the "good" news ought to remind us that there is a limit to the earth's bounty—and the day of reckoning isn't all that far off—decades or at most centuries, not millennia. If there is a God who is personally interested in the welfare of this planet and its inhabitants, what are the chances that this whole energy issue will catch him flat footed? And if (as so many insist) God *doesn't* exist, what difference would it make whether we lived or died?

What can be done? The optimists of the world—capitalists, entrepreneurs, "glass-half-full" types—concentrate on finding and developing new sources (or types) of energy. Meanwhile, the pessimists—socialists, earth-worshipers, "glass-half-empty" souls—contemplate ways to make what we have last longer, 'cause "once we use up nature, there's no tomorrow." And if the paranoid conspiracy theorists are correct (as they all too often are), there's a third group out there trying to ensure that energy breakthroughs never see the light of day, because of the immense piles of money at stake in maintaining the status quo.

My contention, meanwhile, is that they're *all* wrong (even though good and valid arguments can be made to support any of these positions). My position is that since Yahweh created this planet for our habitation, He will neither allow us to utterly destroy it (and ourselves along with it)-nor allow us to live forever like godless animals upon it. Rather, He will unfold His plan of redemption upon the earth—*before* we have used up all of its resources. It is this very plan, of course, that I have been rambling on about for the past thousand pages, and this is just one more factor conspiring to inform us that the Kingdom of Christ will commence within the next few decades. None of what we see happening in the world around us is taking God by surprise: "For this is what Yahweh says—He who created the heavens, He is God; He who fashioned and made the earth, He founded it. He did not create it to be empty, but formed it to be inhabited-He says: 'I am Yahweh, and there is no other." (Isaiah 45:18) That being said, if God is going to act to save us from our own destructive proclivities, He's going to have to move rather quickly: we are multiplying like crazy, and we're getting really good at destroying the earth. But hey, at least we've finally come close to doing the very first thing God told us to do: "Be fruitful and multiply; fill the earth and subdue it [i.e., dominate it, bring it under submission]." (Genesis 1:28)

I'll have more to say about the "optimists" later in this chapter, for their hard work and enthusiasm are changing the world—including the energy issues that confront us—before our very eyes. In the process, they're edging us ever closer to a state in which Biblical prophecy can be *literally* fulfilled. But in the meantime, let us consider the options being mulled over by the pessimists—those sad

individuals who assume that "there is no God, so it's up to us to save ourselves from ourselves."

We have already discussed the oft-stated intention of the liberal elite to solve the world's problems by ridding it of 90-95% of its human population (presumably not including themselves, of course). Steve Jones stated the case as far back as 2005 in an article published on *Rense.com*. He quotes, "'If I were reincarnated, I would wish to be returned to Earth as a killer virus to lower human population levels'—Prince Phillip, Duke of Edinburgh. World population is, by all intents and purposes, completely out of control. Plans are underway now, implemented by the New World Order Elite, to depopulate the planet's 6-7 billion people [now 7.5 billion, and growing at the rate of a billion souls every twelve years] to a manageable level of between 500 million and 2 billion.

"There are many means and methods of depopulation that are being employed today, the 3 primary of which include; unsustainable/exploitative international development, which leads to massive hunger, starvation and famine worldwide (at least 40 million deaths annually), the fomentation of war, hatred and military procurements throughout the nations, leading to millions of deaths worldwide, and finally, the creation and spread of infectious diseases leading to global pandemic, plague and pestilence on an unprecedented scale." (If you'll recall, in our chapter on "World Demographics," we reported on Dr. Eric R. Pianka's scheme to use the deadly Ebola virus to decimate the vast majority of humanity.) Actually, I think Mr. Jones has understated the case here. Given today's population and the average life expectancy of the ordinary human, we can expect about one hundred million people to die annually through normal rates of attrition—the cycle of life. If you're planning on *reducing* the population, you're going to have to find ways to kill off at least *ten times* that many each year.

Jones continues: "Other methods used include: the build-up and use of nuclear, chemical and biological agents, weapons and warfare, the poisoning and contamination of the planet's food and water supplies, the introduction and use of deadly pharmaceutical drugs in society, weather modification and the triggering of earthquakes, volcanic eruptions and tsunamis through electromagnetic psychotronic weapons both on Earth and in space, the promotion of homosexuality to limit population growth and spread the deadly AIDS virus, forced sterilization in countries such as China, forced vaccinations, abortion, euthanasia etc.... Death, and the management of who lives and who dies, has become the central organizing principle of the 21st century." These deadly strategies are no particular secret. For further research, Google: "Agenda 21."

They may be insane, but they're right about one thing: reducing the earth's population to a few hundred million people would definitely make our energy woes easier to deal with (along with food supplies, air pollution, water, and

dozens of other factors we've already considered). What the proponents of "salvation through genocide" fail to appreciate is that if you've killed off everybody but the elite, *no one* will be elite any longer. In the master-slave state they envision, most of the would-be "masters" would inevitably end up as slaves. There is only so much room at the top—which is why the Bible portrays the ideal society not as a structured hierarchy (something that was advocated by the "Nicolaitans" who were condemned twice in Revelation 2), but as "members of one body," having different functions but equal honor.

Some naïve souls long for the "good old days" (not having had to live through them). They sit in their air-conditioned lofts (or their mothers' basements) and romanticize on their Internet blogs about living like the Amish—not having a clue as to why the Amish choose to live as they do—without cars, computers, tractors, or telephones. It has little (or nothing) to do with obsequious earth worship or environmental responsibility, and everything to do with community and faith. Jonathan Starkey explains: "Amish are banned from driving cars and trucks because Amish leaders worry that faster transportation could 'pull the community apart.' The prohibition, however, does not extend to fuel-powered motors and engines such as those used to run power tools and washing machines." In other words, labor-saving devices are okay, as long as they don't impinge upon the principle of a cohesive, God-centered community. The aversion of the Amish to technology is not mindless, naïve, or reactionary, but rather carefully calculated to foster a community-wide trend toward holiness—being set apart from the world's distractions, and being set apart to God. As much as the "progressives" would like to put a halt to technological (i.e., energy-consuming) progress, they aren't quite ready for that.

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I find it fascinating that when "fuel" is considered in the Bible, God often ties its use to warnings about idolatry—the worship or reverence of something that isn't Yahweh. Isaiah writes of a man who takes a piece of wood, uses half of it to heat his home and cook his food, and uses the other half to carve an idol. "Then it [the wood of a tree] shall be for a man to burn, for he will take some of it and warm himself. Yes, he kindles it and bakes bread. Indeed he makes a god and worships it; he makes it a carved image, and falls down to it. He burns half of it in the fire. With this half he eats meat. He roasts a roast, and is satisfied. He even warms himself and says, 'Ah! I am warm, I have seen the fire.' And the rest of it he makes into a god, his carved image. He falls down before it and worships it, prays to it and says, 'Deliver me, for you are my god!…'" When you put it like that, the problem seems pretty obvious. "Fuel" (like so many things) is spiritually neutral: it can be used for evil, or for good—it's our choice. A guy could fill his car's gas tank and drive it to where he could meet with likeminded believers to worship God and study His word—or he could cruise the boulevard looking for a prostitute or a drug dealer. The same electrons coursing through a computer could be used to honor God through study or the edification of others, or could be used to write hate mail, access instructions on how to build a bomb, or download internet porn. The same "fuel" can be used in many different ways some edifying, some harmful.

Isaiah's point is that it illogical in the extreme to use your fuel for *both* good and evil, though we often do that very thing without even realizing it: "They do not know nor understand. For He [Yahweh] has shut their eyes, so that they cannot see, and their hearts, so that they cannot understand. And no one considers in his heart, nor is there knowledge nor understanding to say, 'I have burned half of it in the fire, yes, I have also baked bread on its coals; I have roasted meat and eaten it. And shall I make the rest of it an abomination? Shall I fall down before a block of wood?' He feeds on ashes. A deceived heart has turned him aside, and he cannot deliver his soul, nor say, 'Is there not a lie in my right hand?'" (Isaiah 44:15-20) A "god" of one's own manufacture is helpless to save you, no matter how much faith or devotion you lavish upon it.

Many modern nations have made "deals with the devil" in order to procure the energy they feel they need to sustain their coveted lifestyles. But Yahshua taught us not to obsess over the "fuel" we have at our disposal. (Okay, that wasn't his primary point, but it's a valid one, anyway.) "So why do you worry about clothing? Consider the lilies of the field, how they grow: they neither toil nor spin; and yet I say to you that even Solomon in all his glory was not arrayed like one of these. Now if God so clothes the grass of the field, which today is, and tomorrow is thrown into the oven, will He not much more clothe you, O you of little faith?" (Matthew 6:28-30) Allow me to paraphrase this in light of our current context: "So why do you worry about where your energy comes from? Consider coal, or oil, or gas, or biofuels, or green energy, or even nuclear fuel: God provided these energy sources in profuse abundance, and then left them lying around for man to discover and utilizeburied in the ground, growing in the dirt, falling from the sky, or blowing through the air. Now if God so provides fuel for your toaster ovens, smart phones, and jet airliners, will He not much more provide everything you need—physically, culturally, and spiritually-O you of little faith?"

Here's another angle on "energy usage" in the Bible: "Then he [Aaron] shall take a censer full of burning coals of fire from the altar before Yahweh, with his hands full of sweet incense beaten fine, and bring it inside the veil. And he shall put the incense on the fire before Yahweh, that the cloud of incense may cover the mercy seat that is on the Testimony, lest he die." (Leviticus 16:12-13) Incense is symbolic of the prayers of the saints, offered to Yahweh on our behalf by the High Priest (who is, in turn, symbolic of Yahshua, as Paul informs us: "For there is one God and one Mediator between God and men, the Man Christ Jesus."—I Timothy 2:5). But the incenseprayers don't rise to Heaven without being "set on fire," and that's what the live coals from the altar are for. The hot coals in the bronze altar were what made the smoke of the sacrifices rise toward Heaven as a "sweet aroma" before God (e.g., see Leviticus 3:16, etc.). What do these coals represent? The Holy Spirit—the Helper, the Spirit of Truth whom Yahshua promised to leave behind in His stead, indwelling His followers forever (see John 14:15-18). It's no coincidence that the Hebrew words for spirit (*ruach*) and aroma (*reyach*) are closely related.

But our prayers must be genuine-not mere religious display-if we wish them to reach heaven, conveyed by the Spirit. Phony, showy prayers are not only pointless, they can be dangerous, for they betray a lack of reverence for the holy God to whom they are ostensibly directed. For instance, "Then Nadab and Abihu, the sons of Aaron, each took his censer and put fire in it, put incense on it, and offered profane fire before Yahweh, which He had not commanded them. So fire went out from Yahweh and devoured them, and they died before Yahweh. And Moses said to Aaron, 'This is what Yahweh spoke, saying: "By those who come near Me I must be regarded as holy; and before all the people I must be glorified."" (Leviticus 10:1-3) We aren't told what the precise nature of the "profanity" of their fire was-whether the incense had been made to a recipe not authorized by God (see Exodus 30:34-38), or the coals were from a source other than the altar, or simply that only Aaron the High Priest, not his sons, had been authorized to offer up incense before Yahweh. What is clear is that Nadab and Abihu had done this motivated only by their desire to aggrandize themselves by performing a religious spectacle—it had nothing to do with glorifying (or even petitioning) Yahweh.

When John the Baptist identified Yahshua as the promised Christ, he foresaw the Holy Spirit's role as the "fire" who would quicken our prayers, precisely as it had been presented (albeit in symbolic terms) in the Torah: "I indeed baptize you with water unto repentance, but He who is coming after me is mightier than I, whose sandals I am not worthy to carry. He will baptize you with the Holy Spirit and fire." (Matthew 3:11) So let me ask the provocative question: if the Holy Spirit is the "fuel" of heaven, is it even *possible* for a believer to have an energy shortage? Or is the problem our poor utilization of this potent and precious resource?

I may be bending God's metaphor a bit, but the same lesson is taught concerning perceived "shortages" in the days of the wicked King Ahab. Yahweh had decreed a drought—and subsequent famine—throughout the land, in order to get Israel's attention. The prophet Elijah was instructed to receive sustenance from a widow who was herself on the brink of starvation—a most counterintuitive directive. So Elijah met her, and asked for a morsel of bread (which, of course, looked like suicide to the poor woman). **"So she said, 'As Yahweh your God lives, I do not have bread, only a handful of flour in a bin, and a little oil in a jar; and see, I am**  gathering a couple of sticks that I may go in and prepare it for myself and my son, that we may eat it, and die.' And Elijah said to her, 'Do not fear; go and do as you have said, but make me a small cake from it first, and bring it to me; and afterward make some for yourself and your son. For thus says Yahweh, God of Israel: "The bin of flour shall not be used up, nor shall the jar of oil run dry, until the day Yahweh sends rain on the earth...."' For the purposes of this illustration, think not of the "sticks" as her fuel, but the olive oil in her jar—a common scriptural euphemism for the Holy Spirit (see Zechariah 4:1-6). After all, olive oil was not only food, but was used as fuel for lighting as well.

What happened? Did she and her son starve to death? No. "So she went away and did according to the word of Elijah; and she and he and her household ate for many days. The bin of flour was not used up, nor did the jar of oil run dry, according to the word of Yahweh which He spoke by Elijah." (I Kings 17:12-16) I can't help but reflect that, in these last days, as we are beginning to see the first hints of God's judgment upon the earth (earthquakes, famines, wars and rumors of war, etc.), we believers need not be swept away by these evil times. Yahweh is still perfectly capable of meeting our needs, and if we trust Him, He *will*, right up until the day of the rapture. But note: the widow demonstrated her faith first by "investing" her precious and rapidly dwindling resources in the prophet of God, in response to Yahweh's promise of continued sustenance. In other words, she *believed* God, and it was accounted unto her as righteousness. (Sound familiar? Some things never change.) And note that (as far as we're told) the widow's flour bin and oil jar never looked full. There was always "only" enough left for one more day, for one more meal—and yet she never ran out. I must confess: I know this in my head, but my heart may have some "catching up" to do.

Alas, Israel will still not have repented and turned to her Messiah (as a nation, that is) by the time of the rapture (the departure of the called-out assembly of Christ). But Ezekiel spoke of a war—still future as I write these words—in which Israel's obviously miraculous deliverance will turn them, *en masse*, back to Yahweh their God (see Ezekiel 39:22). Then, months (at least seven, perhaps more) after Yahweh has defeated the Islamic horde on the mountains of Israel, God's people will once again be forced to flee before a powerful enemy—this time, the Antichrist.

Where will they get the resources—especially fuel—necessary to evade the treacherous Beast until the end of the Tribulation (another three and a half years)? Ezekiel provides the answer: "Then those who live in the towns of Israel will go out and use the weapons for fuel and burn them up—the small and large shields, the bows and arrows, the war clubs and spears. For seven years they will use them for fuel. They will not need to gather wood from the fields or cut it from the forests, because they will use the

## weapons for fuel. And they will plunder those who plundered them and loot those who looted them,' declares the Sovereign Yahweh." (Ezekiel 39:9-10)

That's right: the war materiel that the forces of Magog *brought with them* will be "retasked" by the fleeing masses of Israel. Ezekiel mentioned the weapons of his day, the weapons he knew. But what are the shields, bows and arrows, war clubs, and spears of a modern invasion force? In terms of fuel, think gasoline, diesel fuel, Jet-A, rocket propellant, and gunpowder. And what is the "wood from the field and forest" that they didn't (i.e., *couldn't*) use? Think of the immense oil and gas fields newly discovered in Israel—resources they will no longer be able to tap once the Antichrist comes out of the closet. Get the picture? The "plunder" Israel will recover from Gog and Magog will last them several years into the Kingdom age—just long enough to get some energy infrastructure back up and running. Our God thinks of *everything*.

The war of Gog and Magog isn't the last one that will threaten Israel. Another one—the final battle—is predicted, and this is where (in the context of our present study) the whole rebellious world will finally "run out of gas." **"All nations surrounded me, but in the name of Yahweh I will destroy them.**" The epiphany here will come when we figure out who "me" is in this passage. (Hint: it isn't Israel.) **"They surrounded me, yes, they surrounded me; but in the name of Yahweh I will destroy them. They surrounded me like bees. They were quenched like a fire of thorns."** Thorns make a lousy fuel: they're cheap (though worthless for anything other than burning), quickly consumed, and readily quenched. **"For in the name of Yahweh I will destroy them. You pushed me violently, that I might fall, but Yahweh helped me. Yahweh is my strength and song, and He has become my salvation." (Psalm 118:10-14)** 

The key to identifying which battle we're talking about is the first two words: "All nations." That pins this down to one battle, to the exclusion of all others: the battle of Armageddon. And that means that the "me" here is actually "Me." That is, it's Yahshua, who, Isaiah informs us, will "tread out the winepress of the wrath of God *alone*." The last phrase nails it down for us (at least in the Hebrew). It literally says "He (i.e., Yahweh) has become Salvation to me." The word translated "Salvation" is transliterated Yâshuw`ah or Yeshuah—phonetically indistinguishable from the Messiah's name, Yahshua. So the modern Englishspeaking Christian might read this, **"Yahweh has become Jesus to me."** 

A different Psalm says essentially the same thing, using the same "thorn-fire" imagery. "Before your pots can feel the burning thorns, He [Yahweh, through Yahshua] shall take them away as with a whirlwind, as in His living and burning wrath. The righteous shall rejoice when he sees the vengeance. He shall wash His feet in the blood of the wicked, so that men will say, 'Surely there is a reward for the righteous; surely He is God who judges in the earth.'" (Psalm 58:9-11)

"Wash His feet in the blood of the wicked"? God's reluctance to do that sort of thing for the past six thousand years could be why so many today don't believe that He means what He says—or even that He exists at all. They say, "Where is the promise of His coming?" This is an image as squishy as it is unprecedented, but it's precisely as Isaiah pictured the final battle: "Who is this who comes from Edom, with dyed garments from Bozrah, this One who is glorious in His apparel, traveling in the greatness of His strength?—'I who speak in righteousness, mighty to save.' Why is Your apparel red, and Your garments like one who treads in the winepress? 'I have trodden the winepress alone, and from the peoples no one was with Me. For I have trodden them in My anger, and trampled them in My fury. Their blood is sprinkled upon My garments, and I have stained all My robes. For the day of vengeance is in My heart, and the year of My redeemed has come. I looked, but there was no one to help, and I wondered that there was no one to uphold. Therefore My own arm brought salvation for Me, and My own fury, it sustained Me. I have trodden down the peoples in My anger, made them drunk in My fury, and brought down their strength to the earth." (Isaiah 63:1-6)

If you tend to faint at the sight of your own blood, I'd suggest that you don't show up at the Battle of Armageddon intending to destroy what's left of Israel once and for all. God incessantly compares those rebels to grapes squashed in a winepress, or feeling pain like a woman in labor, or worthless thorns being burned as fuel in a quick-and-dirty fire. This is what happens when a holy God restrains His righteous anger for millennia—and then expresses His fury all at once.

In case you still don't believe me, consider this. Every Christian seems to know about the stunning Messianic passage identifying Yahshua as God in flesh—the one that begins, "For unto us a Child is born...." But take a good, hard look at what *leads up to* that stunning revelation: "You [i.e., Yahweh] have multiplied the nation [Israel], and increased its joy. They rejoice before You according to the joy of harvest, as men rejoice when they divide the spoil. For You have broken the yoke of his burden and the staff of his shoulder, the rod of his oppressor, as in the day of Midian." That is, it is a complete and unequivocal military victory, despite seemingly impossible odds. Now note the relationship between the effect and its cause: "For every warrior's sandal from the noisy battle, and garments rolled in blood, will be used for burning and fuel of fire. For unto us a Child is born, unto us a Son is given. And the government will be upon His shoulder. And His name will be called Wonderful, Counselor, Mighty God, Everlasting Father, Prince of Peace." (Isaiah 9:3-6) That's right: the Child, the Son of God will be the One who—all by Himself—will soak the land in the blood of His (and by extension, Israel's) enemies.

Yahweh *will* keep His oft-repeated promise to redeem, restore, and reestablish Israel, or be called a liar. Apostate liberal "Christian" denominations who don't believe this—who illogically side with the "Palestinian" cause over Israel's sovereignty, pressuring their people to divest any interest in Israel and lobbying their governments to betray them—would do well to consider what this passage is saying: if you're not on Israel's side, you're nothing but cheap firewood—fuel for the flame. And remember what Solomon said: **"Like the crackling of thorns under a pot, so is the laughter of the fool."** (Ecclesiastes 7:6)

Fire is often characterized in scripture as a means of cleansing—of purging the impurities out of a metal, for instance. So it's revealing that in God's hands, the fuel used to melt and purify the metal can be *those very impurities*—rebels against Yahweh: "I will pour out My indignation on you." The subject here was the Ammonites, Israel's antagonists to the east, across the Jordan, but the principle is universal. "I will blow against you with the fire of My wrath, and deliver you into the hands of brutal men who are skillful to destroy." As far as I can tell, the only war in which Yahweh will *not* utilize "brutal men" (authorizing one evil to eradicate another), is the final conflict, the Battle of Armageddon—the one in which *all nations* will gather together to face off against Yahweh, as one army. In that unique case, He will wreak vengeance personally, all by Himself. But the price of aggression against God is always the same, eventually: "You shall be fuel for the fire. Your blood shall be in the midst of the land. You shall not be remembered, for I Yahweh have spoken." (Ezekiel 21:31-32)

## Supply and Demand

One of the most fundamental of economic laws is that of "supply and demand." That is, as demand increases in relationship to the available supply, the price of a commodity or service will increase. The world copes with the law of supply and demand in a variety of ways. These strategies apply equally to almost anything you could name—food, housing, fuel, transportation, human resources, financial instruments, you name it. When supplies begin to grow scarce, and prices begin edging upward, consumers will pay the price—up to a point. But then they will begin employing a series of coping strategies. They'll cut back, or do without, or substitute more affordable alternatives. They'll find ways to cheat the system, if they can. Since humans (being made in the image of God) are creative by nature, they'll try to invent new solutions to old problems. And when all else fails, they'll go to war (one way or another)—stealing from their neighbors what they can't procure through honest means. It's all a question of their "desperation level."

The law of supply and demand is so universal and so inviolable, it has become the lifelong endeavor of many to *artificially* either increase demand or reduce supply in order to drive up prices and profits. This may or may not be a bad thing, depending upon one's motivation. As the old saying goes, "Build a better mousetrap, and the world will beat a path to your door." The entrepreneurial spirit constantly strives to identify areas that could be improved, and then to fill those needs through innovation, leveraging hard work, capital, and insight into profitable business opportunities.

The trouble arises when the profits become more important than the problem solving. Man is not only creative; he's also evil, fallen, and sinful. We need to constantly examine our motives before God: at what point do our innovations cease helping our fellow man, and become his burden instead? Let's face it: in these Last Days, "building a better mousetrap" sometimes entails introducing a bunch of mice, just so everybody will perceive the need for the product.

I'll offer one example, among thousands of possible candidates—one related to energy issues. Every spring, gasoline prices in the U.S. make a sudden jump of eight or ten percent. Why? Because the refineries (by law) have had to switch over to their "summer blends." The problem is that where three or four formulas would suffice (and have minimal economic impact) nationwide, the government insists on producing dozens of "boutique fuels." The Weekly Standard asks, "Quick: How many kinds of gasoline do we use in America? Most people would say three, or six: regular unleaded, mid-grade, and premium, along with the ethanol blends of the same that have become nearly universal. The actual number is somewhere above 45, though hard to pin down exactly, according to the Government Accountability Office (GAO). It might even be closer to 70. Thirtyfour states use specially blended gasoline, usually during the summer, which is one reason gasoline prices always rise during the 'driving season.'... It's the product of EPA bureaucrats and the Clean Air Act, stubbornly maintained even though boutique fuels now deliver only marginal reductions in air pollution from cars, if any at all."

Another example of energy supply and demand being affected by regulation one that few people seem to remember—is the painful period in the early 1970s, when the EPA, flexing its new muscles, required that the automobiles sold in America were equipped with catalytic converters and other anti-pollution devices (requiring in turn that gasolines now had to be lead-free). These did indeed ensure that every gallon of gasoline burned in our cars contributed less pollution to the atmosphere—in itself, a good thing. What nobody seemed to notice (or care about) was that in the process, the cars of the day became measurably less efficient, so *more gas* had to be burned in order to travel the same distance cancelling out much of the environmental advantage that had been gained. Until the engineering caught up with the politics, the American people suffered.

It's one thing to "build a better mousetrap." It's quite another to reduce effective supply through unnecessary regulation, or artificially increase demand through political or marketing maneuvers. With the current pace of technological innovation in the world, it's hard to keep up. The question too few think to ask is: is "keeping up" really necessary? Faced with the demons of advertising, planned obsolescence, and government control, people and businesses are encouraged—then forced—to expend resources on things that are far from essential, or to jettison previous investments that still have life in them. The free market is seldom left to operate freely anymore, in matters of energy or any other field.

A 2008 article about energy supply and demand issues published by the National Academy of Sciences on its website *nap.edu* is germane to our study—not only because it looks forward to the theoretically auspicious year 2030 in its projections, but also because so much has changed in the few short years between their writing and mine. (In particular, the energy resources made possible through hydraulic fracturing—"fracking," for short—weren't even a blip on their statistical radar; yet today these new technologies have managed to turn the world's oil and gas reserves scenario upside down. More on fracking in a bit.) Note that the statistics quoted here are for the United States, not worldwide.

"Two profound questions loom over all other energy concerns: Will we have enough affordable energy in the near future? What will we do for the long term?

"The answers depend on our inventory of sources. At present, oil accounts for 40% of total energy consumption in the United States. Coal provides 23% and natural gas provides 22% of our energy. Another 8% comes from nuclear power plants. Renewable energy sources round out the roster, accounting for 7% of consumption—mostly as the result of hydropower investments made in the last century and the use of biomass (organic matter such as wood, municipal waste, and agricultural crops) for energy production.

"Those sources and their proportions will have to change eventually, since the planet's known supplies of fossil fuels are limited." They *are* "limited," but not nearly to the extent the writers assumed. "But during the next couple of decades, the nation's energy menu is unlikely to be substantially different from today's— assuming 'business as usual' conditions." Of course, over the past few chapters, we've learned that you can't really count on "business as usual" over the long haul—for scores of different reasons.

But perhaps even the Academy can see this: "That may be a lot to assume: Energy prices and availability aren't solely determined by the size of the supply. They're also affected by the economy, possible new laws and regulations governing energy choices (such as emissions of carbon dioxide and other gases), worldwide demand, the policies and political stability of petroleum-rich nations, lifestyle choices and business decisions, climate change, and the pace of developments in science and engineering. Any of these factors can change in a very short period of time." You have no idea, guys. Even as you were writing these words, America was about to be "blessed" with an administration that was willing to waste billions of *borrowed* dollars on green energy boondoggles that didn't have a prayer of practical success, while actively impeding the development of proven energy reserves like coal, oil, and natural gas—all to placate a small but noisy (and well-funded) "green lobby."

"Still, if the economy and the inflation rate perform as expected and there are no drastic geopolitical changes or dramatic technological breakthroughs [*oops*, on both counts—"if" can be such a big word], objective forecasts show that traditional supplies of petroleum, gas, and coal will be adequate to meet expanded demand for decades." I would note that "decades" isn't a very long time, it the broad scheme of things. Yet the only thing impeding the expansion of the energy supply is our own elected leaders. Speaking of his mercifully dead-on-arrival "Cap and Trade" system, Mr. Obama said (before his election, in January, 2008), "Under my plan…electricity rates would necessarily skyrocket." That was his *goal*—to make energy more costly so we'd all be forced to use less of it. Unfortunately, we're discovering that there's more than one way to skin a cat. Energy prices *have* "skyrocketed," even *without* Cap and Trade. On January 19, 2009, the day before Obama took office, the average price of a gallon of regular unleaded gasoline in the U.S. was \$1.838. Ah, the good old days.

Let us then take a closer look at the Academy's outlook on individual energy sources, beginning with Oil. "The United States, with less than 5% of the world's population, is home to one-third of the world's automobiles. Over the next 20 years, the total number of miles driven by Americans is forecasted to grow by 40%, increasing the demand for fuel. Yet there is little that can be done locally to increase the oil supply." Not exactly true, as we shall see. "U.S. domestic production of crude oil peaked around 1970 at about 9.5 million barrels per day (MBD) and had declined to 5.1 MBD by 2006. Today America imports almost two-thirds of its oil from a handful of nations. The Energy Information Administration (EIA), a U.S. government agency that provides official energy statistics and forecasts, expects U.S. production of oil to remain approximately constant through 2030, while imports are projected to rise gradually to about 70% of consumption. So the basic question remains: How long can we maintain our petroleum dependency? The EIA cites known conventional oil reserves at more than 1.3 trillion barrels worldwide, and the U.S. Geological Survey estimates that there may be another 600 billion barrels undiscovered to date...."

Here is where the Academy's ignorance of the coming fracking boom throws their projections off. For example, *ABC News* (November 13, 2012) reported, "Drillers in Utah and Colorado are poking into a massive shale deposit trying to find a way to unlock oil reserves that are so vast they would swamp OPEC. A recent report by the U.S. Government Accountability Office estimated that if half of the oil bound up in the rock of the Green River Formation could be recovered it would be 'equal to the entire world's proven oil reserves.' Both the GAO and private industry estimate the amount of oil recoverable to be 3 trillion barrels. 'In the past 100 years—in all of human history—we have consumed 1 trillion barrels of oil. There are several times that much here,' said Roger Day, vice president for operations for American Shale Oil (AMSO). The Green River drilling is beginning as shale mining is booming in the U.S. and a report by the International Energy Agency predicts that the U.S. will become the world's largest oil producer by 2020." Actually, that milestone was reached by mid-2014. "That flood of oil can have major implications for the U.S. economy as well as the country's foreign policy which has been based on a growing scarcity of oil."

So things have gotten quite a bit more optimistic for oil production in the U.S. since the Academy's 2008 article. That being said, the trend toward increasing demand and decreasing supply *worldwide* remains a concern. The Academy writes, "At present, total world consumption is approximately 85 MBD, millions of which are used by the United States. The nation's dependency on oil and the rapidly rising demand for oil in other countries, such as China and India, are heightening concern that we will reach a point where the oil supply can no longer be increased to meet projected demand. While this will certainly be true eventually, there is no consensus as to whether we are already entering that period or it is decades away. Pinning down an exact time frame is nearly impossible as estimates of the amount of 'recoverable' oil available can change depending on new discoveries, technological developments, and price...." Not to mention the geopolitical developments described in prophetic scripture—the rapture, the utter destruction of the Islamic world, two back-to-back world wars, and the subjugation of the whole world under Satan's meat puppet, the Antichrist. I'm no prophet, but it's my guess that hardly anybody is going to be using much fuel by the middle of the Antichrist's reign of terror.

As I said, in the meantime, one of humanity's "coping mechanisms" for dealing with shrinking supplies is to invent substitutes. In the case of gasoline, the latest workaround has come in the form of grain alcohol—ethanol—made mostly from corn. Most gasoline sold in the U.S. today contains up to 10% of this alternate fuel. But, "Ethanol raises other concerns. One drawback of corn ethanol production is that it requires a large amount of land and fresh water, along with inputs of fertilizers and energy. This results in potential competition with food sources for land use and fresh water for other industrial and commercial uses. In addition, with current technology, two-thirds of the energy value of corn ethanol is used just to produce the fuel—and most of that energy comes from fossil-fuelbased electricity or heating, offsetting much of the benefit." On the "bright side," most of our corn these days has been genetically modified, and thus is not fit for human (or animal) consumption. So I suppose it makes sense (*cough, choke*) to make it into fuel you can put into your car so you can drive to someplace where you can buy some *real* food. (Or, you could if our government would require the labeling of GMOs—which they should, but don't.)

What about *Natural Gas*? The Academy offers this assessment: "Unlike oil, our natural gas comes primarily from North America. The annual volume of consumption is projected to rise from 21.8 trillion cubic feet (TCF) in 2006 to about 23.4 TCF in 2030. New activity in Alaska will supply some of that, but most will likely come from the lower 48 states and the Gulf of Mexico. Although the nation imports less than 3% of its natural gas from outside North America, it is forecast that imports will increase in the next few decades, from 0.5 TCF per year in 2006 to 2.9 TCF per year in 2030. These imports will largely take the form of liquefied natural gas, which is natural gas cooled to its liquid phase, making it easier to transport.

"Global consumption of natural gas in 2004 was 100 TCF." That had risen only slightly—to 106 trillion cubic feet per year—by 2010. "Known world reserves of conventional natural gas total about 6,000 TCF, with perhaps another one-tenth of that amount still undiscovered. At that rate, known reserves will be adequate for about 60 years." The good news is that several huge new gas fields have been discovered since that was written. The bad news is that sixty years (make that *fifty*—the clock is ticking) is but a blink of an eye in the lifespan of the human race. It's one more reminder that "the end of the world as we know it" may not be as far off as we tend to think.

How about *Coal*? "America has plenty of coal. Its mines produced 1.2 billion tons in 2006, nearly all of it destined for electricity generation. That was a record year, but it barely scratched the surface of U.S. recoverable coal reserves, which are estimated at about 270 billion tons. More than one-fourth of the total known world coal reserves are in the United States, and supplies are sufficient for hundreds of years at current consumption rates. Demand is projected to increase by 30% between now and 2030, propelled by rising use of electricity and possibly the expanded use of still-developing technology that converts coal to liquid fuel. Most of the increased supply will probably come from western states, which now provide about six-tenths of the nation's coal. Wyoming alone accounted for 38% of all domestic coal mined in 2006."

This, of course, was written before Mr. Obama launched his "war on coal," making it practically a crime in America to utilize this cheap and abundant natural resource, all in the name of "saving the environment." He has, through regulation, artificially increased demand by cutting the available supply. It might even have made some environmental sense if China and India had cut back on their coal usage as well, but they are (at this stage of their development) more concerned with profit than with pollution.

Call me naïve, but it seems to me that rather than strangling the coal industry, we should be investing in scientific research seeking ways to make it cleaner less of a pollutant contributor. I mean, we *threw away* \$523 million on Solyndra; \$3 billion on First Solar; \$1.5 billion on SunPower; \$2.1 billion on Solar Trust of America; \$43 million on Beacon Power; \$1.66 billion on Bright Source; \$17.1 million on Eastern Energy; \$98.5 million on Nevada Geothermal; \$178 million on Babcock & Brown; \$118 million on Ener1; \$5.9 million on Amonix; \$339 million on Fisker Automotive; \$400 million on Abound Solar; \$404 million on A123 Systems; \$3 million on Evergreen Solar; \$6 million on the Willard and Kelsey Solar Group; \$299 million on Johnson Controls; \$86 million on Schneider Electric; \$126.2 million on ECOtality; \$33 million on Raser Technologies; and a measly \$500,000 on SpectraWatt. Be honest now. How much money would have to be spent on coal research and development to make it a clean, viable energy solution? Less than that, I'm guessing.

The Academy explains why coal is worth developing: "Of all the fossil-fuel sources, coal is the least expensive for its energy content. In 2005, a million BTUs of energy from coal cost approximately \$2, compared to \$5 for natural gas and \$10 for petroleum." That's the upside. The downside, to my mind is well worth the effort and expense it would take to overcome it: "However, burning coal in electric power plants is a major source of CO<sub>2</sub> emissions [which may not turn out to be the bogey-man everybody imagines—stay tuned], and its use has repercussions beyond combustion. Mining coal disturbs the land and modifies the chemistry of rainwater runoff, which in turn affects stream and river water quality. Coal-fired power plant emissions include oxides of nitrogen, sulfur dioxide, particulate matter, and heavy metals (such as mercury) that affect air quality and human health, often even hundreds of miles from the power plant. In response to strict environmental laws, 'clean coal technologies' are being developed to reduce harmful emissions and improve the efficiency of these plants." All I'm saying is that these "clean coal technologies" could be developed faster if our government worked with the coal industry, rather than against it.

Let us move on to *Renewable Energy Sources*. The Academy opines, "Use of renewable energy sources will increase, in some cases dramatically, over the next two decades. While they may make significant contributions to the energy supply in certain geographic areas, absent major changes in economic, political, or technological factors, they will still provide a small fraction of our overall energy." And "political factors," as we have seen, don't seem to be terribly effective in transforming a sow's ear into a silk purse. It doesn't seem to matter how much money we throw at solar power, windmills, or battery technology—our government hasn't yet figured out how to make these things commercially viable.

"Hydropower is unlikely to increase much between now and 2030 [mostly because America's 'green lobby' has been quite effective in stifling any new developments in this most efficient of renewable energy resources], but energy from biomass products (which include wood and wood byproducts, municipal waste, methane from landfills, and fuel from agricultural crops) will likely increase more than 60% by 2030." Brilliant. That's basically the same stuff coal is made out of. "Energy from wind, solar, and other renewable sources is expected to nearly triple. But the net effect of all that activity will probably only raise the total contribution of renewables from 7% of total consumption now to about 8% in 2030." It might be different if these technologies could pay their own way. But at the present time, it costs us a dollar to make fifty cents.

"Hydroelectric production currently accounts for about 2.9% of our total energy production, while geothermal accounts for about 0.4%. Wind and solar-toelectric technologies account for a very small part of our total energy production, but wind, currently assisted by a production tax credit, has been penetrating the market rapidly in the past few years and accounted for almost 1% of the electricity generated in the United States in 2006. The idea of drawing our energy from sources that are renewable, are independent of foreign nations, and do not emit greenhouse gases has powerful appeal. But capturing these resources is expensive, and many are intermittent [like solar], or sporadic [like wind], which complicates using them on a large scale. Further development promises reduced costs and improved storage and controls to overcome the intermittency problem."

And finally, what about *Nuclear Power*? "America is unlikely to face problems in obtaining enough uranium ore to meet anticipated demand for several decades. According to government estimates, output from nuclear power plants is expected to increase only 18% by 2030. However, a U.S. nuclear renaissance is possible, and a growing number of nuclear plant design and construction permits have been submitted to the Nuclear Regulatory Commission over the past year. Some countries have successfully embraced nuclear power generation: for example, nuclear power plants produce nearly 80% of all electricity in France. In the United States, the issue prompts considerable debate, including concern over security and arguments about where and how to dispose of nuclear waste. But interest is growing, and nuclear energy may one day play a much larger role in supplying America's electricity." This was written, of course, before the Fukushima nuclear disaster of March, 2011. The world's growing confidence toward nuclear power's relative safety may have been shaken a bit since then.

"Even with renewed U.S. interest in nuclear power generation, sufficient uranium supplies will likely be available. According to the Council on Foreign Relations, known worldwide reserves are adequate for about 70 years at current consumption rates and under current policies." Once again, we see that although we're okay for the short term—the next generation or two—fuel promises to be in increasingly short supply in the coming decades. The idea of man continuing to live on this planet as he has for the past six thousand years for *another* six thousand years—or even another six *hundred*—is looking less likely all the time. Given our present voracious appetite for energy, our future (if things remain on their present course) is looking less like the "Jetsons," and more like the "Flintstones" every day.

The Academy concludes, "Experts predict a 35% increase in demand for electricity by 2030. In practical terms, that means an equivalent increase in demand for coal and gas, at least for the next decade: Electricity generating plants now consume two-fifths of U.S. energy from all sources, including 90% of America's coal and nearly 30% of its natural gas.

"There is no immediate way to alter that situation. In the near term, renewable sources such as solar, wind, and geothermal are unlikely to substantially change the mix of our energy supply. (And integrating the energy from many of these renewable energy sources would likely require substantial expansion of the electric transmission system.) While nuclear generation is a zero-atmosphericemissions alternative that already produces one-fifth of America's electricity, efforts to increase that capacity face two large, though not insurmountable, hurdles: high capital investment costs and resistance from citizens groups that oppose the use and storage of radioactive material." (Yes, almost as much as they "oppose" living without air conditioning, water heaters, and refrigerators.)

Another "supply" issue that needs to be addressed is the transport mechanism—getting electricity from where it's generated to where it's used. There is invariably some distance involved, for folks don't like living next door to nuclear, coal, or even natural gas-powered generation stations. Hydroelectric dams must be built on rivers, often hundreds of miles from where the power is used. The same sort of thing is true of wind power and geothermal energy. About the only possible way to generate electricity where it's used is to have solar panels on the roof your home—technology that is woefully inefficient in its present state of development, and doesn't work at night. (That's not to say I don't like the idea. I once looked into having my own house converted to solar power. But the "payback" was something in the neighborhood of fifteen to twenty years, and I don't plan on being around that long—besides the fact that whole thing would doubtless need to be replaced by the time it had saved me enough on my electric bills to pay for itself.)

So for most of us, our electricity comes to us from someplace else, via something called "the grid," an intricate, interlocking system of generation sites, intermediate power stations, high-voltage transmission lines, transformers, and distribution lines. It's built so that if one sector fails, power from other places can be re-routed to pick up the slack—up to a point. There are fail-safes and redundant systems designed to mitigate widespread power outages, and for the most part the system works well. Even when extreme weather knocks out power to wide areas, the power-line crews are a well-oiled machine, willing to go the extra mile to minimize our inconvenience. (Thanks, guys.)

That being said, there is a "sword of Damocles" of sorts looming over North America's power grid—and not just here, but worldwide, though our utter dependence on electricity makes us proportionately more vulnerable. That threat is a massive electromagnetic pulse, or "EMP." Elizabeth Harrington, writing for the *Washington Free Beacon* (May 8, 2014), reports, "Experts on Capitol Hill Thursday warned that an electromagnetic pulse (EMP) attack aimed at the nation's electrical grid could leave the majority of Americans dead." Okay, that's a worst case scenario. But as hysterical as it sounds, it should at least alert us that there is real danger present.

"The hearing, 'Electromagnetic Pulse (EMP): Threat to Critical Infrastructure,' before the House Homeland Security Committee's Subcommittee on Cybersecurity, Infrastructure Protection, and Security Technologies, explored the effects an EMP would have. 'Some would say it's low probability, but the damage that could be caused in the event of an EMP attack, both by the sun—a solar event—or a man-made attack, would be catastrophic,' said Rep. Michael McCaul (R., Texas). 'We talk a lot about a nuclear bomb in Manhattan, and cybersecurity threat to the power grid in the Northeast, but all of these things would probably pale in comparison to the devastation that an EMP attack could perpetrate on Americans.'

"Rep. Trent Franks (R., Ariz.), who has worked to raise awareness on the issue for years, testified during the first panel that 'catastrophic civilian casualties' could result unless Congress acts. An EMP (an overload of radio waves to electric systems) could result from a natural disaster, such as a solar storm, or a terrorist attack. Franks said 'every single facet of modern human life' would be 'crippled' by such an event. 'It strikes at my very core when I think of the men, women, and children in cities and rural towns across America with a possibility of no access to food, water, or transportation,' he said. 'In a matter of weeks or months at most, a worst-case scenario could bring devastation beyond imagination....'"

The threat lies in our almost total reliance upon electricity in this country—a phenomenon that has become reality only within the past sixty or eighty years. Think beyond the inconvenience of no longer having indoor lighting or air conditioning. We preserve and cook our food with electricity. That water you drink, bathe in, and flush your toilets with? It's unobtainable without electrically operated pumps. We can't refuel our vehicles without it (or refine the fuel in the first place, for that matter). Our whole world runs on computers—but an EMP

would render them all useless. Anything electronic that happens to be running when an electromagnetic pulse strikes is at risk of destruction. An EMP in the right/wrong place could conceivably wipe out the financial infrastructure of the entire nation—since "money" is increasingly little more than ones and zeros in a computer.

You could protest, "Before 1900, hardly anybody had electricity, and *nobody* relied on it. In some places in the world, that's still the case. We could simply go back to the old ways." You're right, of course, but it would take time—decades—to achieve, as a national lifestyle. Few know how to grow their own food anymore. How many would die before they figured out how to get a simple glass of water without electricity? And even if you were "prepared" for such an eventuality—with your own vegetable garden, flock of chickens, and hand-pumped well, how long would it take until your desperate and anarchistic neighbors stole what you had so carefully prepared?

The Federal government, of course, has taken steps to protect what it deems indispensable—*itself*, including the nation's critical defense assets, including nuclear weapons. The equally critical needs of hundreds of millions of ordinary citizens, not so much. Representative Franks reports that the civilian electrical grid is "almost entirely vulnerable" to an EMP event, whether caused by unusual solar activity or by terrorists.

"The issue is an urgent one, said Dr. Peter Pry, a member of the Congressional EMP Commission and executive director of the Task Force on National and Homeland Security, who testified that an EMP event could wipe out 90 percent of America's population. 'Natural EMP from a geomagnetic super-storm, like the1859 Carrington Event or 1921 Railroad Storm, and nuclear EMP attack from terrorists or rogue states, as practiced by North Korea during the nuclear crisis of 2013, are both existential threats that could kill 9 of 10 Americans through starvation, disease, and societal collapse,' he said."

We can all weather a power outage for a few days—even weeks, if we have to. But the sort of catastrophic, region-wide electrical-grid shutdown an EMP could potentially precipitate could, under perfect-storm circumstances, last for months, even years. That puts it beyond the realm of "inconvenience," and into the category of cultural upheaval. Such crises inevitably bring out the best—and the worst—in people. Some would use the emergency as an excuse to rob, steal, and kill—doing whatever they thought was necessary to stay alive. Others would help each other, sacrificially if need be. But with a condition this widespread and this persistent, it would eventually no longer matter whether neighbors would be willing to pull together and assist each other—or whether they'd turn on each other in cannibalistic desperation. Everybody would be in the same sinking boat, with no food, no water, and no hope. It's the ultimate supply vs. demand scenario: cut off the supply of electricity (with an EMP or some other means) and folks will do *anything* to get it back. I can practically guarantee (from prophetic implications) that one third of the earth will experience thermonuclear war in the coming years. The first trumpet judgment (Revelation 8:7, cf. Isaiah 24:6) seems to be describing that very thing in first-century language. Wherever the nukes fall, EMPs are part of the effect (especially if they are set off in the atmosphere)—and we can be reasonably assured that power grids will be impacted (pardon the word choice) far beyond the blast radii of the individual nuclear detonations. So does the Bible imply that the whole "civilized" world will be permanently blown back to the seventeenth century (that is, without electricity) by nuclear war?

Remarkably, no. There are quite a few indications (if we read between the lines, of course) that conspire to inform us that electronic communications (which require a working electrical grid) will be pretty much up and running worldwide during the reign of the Antichrist (that is, by my watch, spring 2030 to fall 2033). That's the last half of the seven-year Tribulation, beginning perhaps a year *after* the nuclear holocaust has taken place.

First, we read of the ascension of the Antichrist: "I saw one of his heads as if it had been slain, and his fatal wound was healed. And the whole earth was amazed and followed after the beast. They worshiped the dragon because he gave his authority to the beast; and they worshiped the beast, saying, 'Who is like the beast, and who is able to wage war with him?'" (Revelation 13:3-4) "And authority was given him over every tribe, tongue, and nation.... And he [the false prophet] deceives those who dwell on the earth by those signs which he was granted to do in the sight of the beast." (Revelation 13:7, 14) You can only "deceive" people if they can see and hear you; people can only "be amazed" and "follow" someone if they know about him; the Antichrist's "authority" can be exercised only if what he has commanded can be communicated. And note: "every tribe, tongue, and nation" defines his realm as *the whole earth*. I can't envision how any of that could be possible without modern electronic communications—something that runs on electricity.

Then, there's the infamous "mark of the beast," of which it is said, "No one may buy or sell except one who has the mark or the name of the beast, or the number of his name." (Revelation 13:17) Call me unimaginative, but I can't seem to picture a "mark" of any description that would fulfill the commerce requirement of this prophecy without transferring information—most logically, via the Internet. The mark seems to be a personal biometric identifier of some sort that would be "read" with a scanner. It would, of necessity, identify the holder to the exclusion of every other person on the face of the earth, and would be issued and implemented only upon taking a solemn oath of loyalty to the Antichrist and his one-world government, including his god (Lucifer—Satan). Data transfers like

this require connectivity, and that in turn requires a working power grid. A simple tattoo saying "Team Lucifer" could do nothing to enable or authorize commerce, nor would *not* having it prevent someone from buying or selling, especially in the black market that could be expected to thrive amid the inevitable anarchy that would run rampant in a post-nuke world.

The same sort of thing is shown to be true right up to the last week of the Tribulation. For three and a half years, two "witnesses" will function as the ants at the Antichrist's picnic, proclaiming plagues of Biblical proportions—only to see them come to pass just as they were prophesied. For their whole time of "ministry," these two will be untouchable, but when their job is done, the beast (the Antichrist or his demon) will be allowed to kill them. John reports, "Then those from the peoples, tribes, tongues, and nations [that is, all over the earth] will see their dead bodies three-and-a-half days, and not allow their dead bodies to be put into graves. And those who dwell on the earth will rejoice over them, make merry, and send gifts to one another, because these two prophets tormented those who dwell on the earth." (Revelation 11:9-10) Once again, this sort of thing is literally impossible unless some means of electronic communication is in operation—the Internet, satellite television, or some unforeseen technological medium. But however the message is transmitted to the Antichrist's sycophants all over the world, it is a "given" that it will run on electricity.

That in turn logically requires that the solar event implied in the fourth bowl judgment *won't* include an EMP sufficient to bring down power grids all over the earth. John describes it: **"Then the fourth angel poured out his bowl on the sun, and power was given to him to scorch men with fire. And men were scorched with great heat, and they blasphemed the name of God who has power over these plagues; and they did not repent and give Him glory." (Revelation 16:8-9) Prophetic logistics place this event sometime during the reign of the Antichrist. How God intends to "scorch men" with the sun's suddenly increased heat, while at the same time preserving their ability to communicate the news concerning the two witnesses worldwide is anybody's guess. I'm just here to report the data.** 

One thing is certain, however. It is only recently (within the past half century or so) that the world has become so dependent upon electricity that vast numbers would suffer and die if it were suddenly "turned off" for good. And every day that goes by, more and more of the world's populace becomes vulnerable to a collapse of the electrical grid. Can this balancing act be maintained until the fourth decade of the twenty-first century? Or is God's timetable telling us what we should already have concluded from merely observing the sorry state of our world?

## Game Changer #1: Muslim Oil Wealth and Power

Islam has been a force for instability and misery since its very inception in the seventh century. Its influence has expanded through conquest alone, since (according the Hadith) Muhammad's entire strategy for the advance of Islam was piracy and plunder—driven by his personal greed and lust. His successor-caliph, Abu Bakr (father of Muhammad's child-bride, Aisha) found that the only way he could prevent Islam from collapsing under its own weight after the death of the charismatic prophet in 632 was to strike out militarily beyond the borders of the Arabian Peninsula in search of booty.

So by 638 A.D., within a few short years of Muhammad's death, Muslim armies occupied the area north of Arabia—Syria, Palestine, Lebanon, and Iraq. By 641, they had entered Egypt and routed the Byzantine forces there. Their march west across North Africa began in 655, and by 711 the sword of Islam had entered Spain. Their advance through Western Europe was stopped (finally) by Charles Martel at the battle of Poitiers, in France in 732. Meanwhile, their conquest also proceeded eastward from Baghdad. They had entered India by the early eighth century, spreading from there like a malicious cancer across much of South Asia.

But although the first century following Muhammad's death saw stunning gains both in territory and forced "conversions," their success was based entirely on greed, not religious fervor. Why? Because Muhammad had forbidden taking the Qur'an (supposedly the very words of Allah) outside of Arabia. It is recorded in the Hadith of Imam Muslim thus: "The Messenger said, 'Do not take the Qur'an on a journey with you, for I am afraid lest it would fall into the hands of the enemy.' Ayyub, one of the narrators in the chain of transmitters, said: 'The enemy may seize it and may quarrel with you over it.'"

Good move, actually. Having read the Qur'an, I can assure you, it's totally indefensible—a hodgepodge of conflicting and contradictory situational scriptures whose sole purpose is to lend "divine" support to whatever Muhammad wanted at any particular moment. The third caliph, Uthman, made an attempt to have the Qur'an written down (in about 650) but he found so many conflicting versions floating around, he simply selected the ones he liked, and *burned* the rest. Many of the most enthusiastic and devoted "transmitters" (those who had memorized bits of the Qur'an and were charged with passing it on as oral tradition) had been killed in battle early in the game. The chain of oral transmission (or *isnad*) is questionable at best, and at worst is too long and thin to be remotely credible. Bottom line: for all practical purposes, much of the Qur'an was invented out of whole cloth and wishful thinking by Islamic clerics in Baghdad, *centuries* after Muhammad's death. One telling indicator: Qur'anic quotes inscribed within the

Dome of the Rock (built in the late seventh century) bear no resemblance to anything in today's Qur'an.

The only reason I even bring up the subject of questionable Qur'anic credibility, however, is that it has a bearing on the energy issues of the Last Days. Bear with me as I connect some prophetic dots.

People who desperately wish to see Islam as just one of many religions in the world (instead of an acquisitive and militaristic *political* doctrine) invariably refer to "Islam's golden age," as if *Islam itself* were once a source of culture and knowledge illuminating the medieval world. And indeed, there was a time in which Islam served as a conduit of excellence in art, architecture, science, mathematics, and medicine. But what was the true source of this cultural renaissance? It was in the peoples the Muslims had overrun and subjugated. Knowledge was collected and codified from that which had been developed previously, and elsewhere. It was then dispersed throughout *dar al-Islam* via its own dark-ages version of *pax Romana*.

For example, *Wikipedia* reports, "Responding to circumstances of time and place, Islamic physicians and scholars developed a large and complex medical literature exploring and synthesizing the theory and practice of medicine. Islamic medicine was built on tradition, chiefly the theoretical and practical knowledge developed in India, Greece, Persia, and Rome." That is, places Islam either took with the sword, or wanted to. "For Islamic scholars, Galen, Mankah, Sustura, and Hippocrates were pre-eminent authorities. Islamic scholars translated their voluminous writings from Syriac, Greek, and Sanskrit into Arabic and then produced new medical knowledge based on those texts. In order to make the Greek tradition more accessible, understandable, and teachable, Islamic scholars ordered and made more systematic the vast and sometimes inconsistent Greco-Roman medical knowledge by writing encyclopedias and summaries. Pagan Latin and Greek learning was viewed suspiciously in Christian early medieval Europe, and it was through 12th-century Arabic translations that medieval Europe rediscovered Hellenic medicine, including the works of Galen and Hippocrates."

The same sort of thing could be said of many of the "bright spots" of the Islamic golden age. The Muslims, having no real God, were willing to receive knowledge from any and all sources—and they did so with alacrity, claiming it all as their own—theirs by right of conquest. (Meanwhile, the church under Roman authority made the inverse error of assuming that if God hadn't spelled it out and they hadn't invented it, it must be evil—so they suppressed knowledge and burned books—metaphorically, anyway—from the Torah to the Greeks to the Persians.) The Muslims, meanwhile, absorbed the knowledge and culture of whomever they subjugated—Persians, Pagans, Christians, Byzantines, Jews, Hindus, and Chinese, etc. Even the vaunted Jewish Torah scholar Moses ben Maimon (a.k.a. Maimonides, a.k.a. the Rambam, a Spanish physician, philosopher, and astronomer), ended up working in Cairo as the court physician to the Grand Vizier Al Qadi al Fadil, and later to Sultan Saladin himself.

How could this be, in light of the Qur'an's proven ability to stifle civilization and turn men into beasts? It's quite simple, actually. The Islamic "golden age" occurred at a time when the Qur'an was *not* widely known or studied—*even in Islamic circles*—after the period of rampant conquest, but before the invention of printing. Most Muslims were (if you'll pardon the comparison) sort of like faux "Christians" who attend church on Christmas and Easter (both recycled *pagan* holidays, by the way) but entirely ignore the faith, its precepts, and its God the rest of the year. In other words, Islam during the "golden age" was a cultural phenomenon, based not on the words of Allah (or even Muhammad), but on ingrained tradition—societal habits (many of them quite benign) that went back so many generations, no one really remembered what had held things together before the Muslims took over.

Although Muslims have always been an aggressive and acquisitive people, with piracy and plunder in their blood (and using robbery, rape, and slavery as their tactics, just as Muhammad had), they were never actual *terrorists* until the Qur'an became their guiding force. This phenomenon began (in the modern sense) with the Muslim Brotherhood, founded in Egypt in 1928 by a schoolteacher, one Hassan al-Banna, whose goal was for the Qur'an and Sunnah (the recorded deeds of Muhammad) to become the sole guiding force in Islam, providing order and purpose in the life of the Muslim individual, family, community, and state. This return to Islamic fundamentalism is what drives the barbarity of Sharia Law today, not to mention the insane, often suicidal, hatred by Muslims toward Christians, Jews, and Hindus in the modern world.

The Muslim Brotherhood has had only spotty success—notably in Egypt, where it recently held the reins of power for a brief season, but is now classified once again (quite rightly) as a terrorist organization. But its ideas and ideals have found fertile ground among Muslims generally in recent years. It makes sense, I guess: cultural Islam was a dry hole, offering its adherents no salvation, no purpose, no redemption, and no hope. At least fundamentalist Islam offers the outside possibility of a perverted "paradise" for those rare individuals willing to hate their fellow man unreservedly in the name of Allah. Cultural (a.k.a. "peaceful") Islam offered no such hope—only the depressing realization that a "god" who doesn't like you very much predestined your eternal fate before you were even born. I presume that it doesn't help to know that the Hadith of al-Bukhari quotes Muhammad as saying that the total capacity of the Islamic "paradise" is but 70,000 souls (which, given the number of Muslims who have

lived since the seventh century, makes the chances *against* entering this blessed state about 43,000 to one—and *that's if you're a Muslim*).

By this time, you're no doubt asking, "What does all that have to do with energy issues?" Ask yourself this. Is it a coincidence that the Muslim Brotherhood and its ideals took hold at roughly the same time oil was first being discovered in the Middle East? Oil was being pumped from the sands of Iraq as early as 1908, in Persia (Iran) in 1911, and from Saudi Arabia in 1938. Kuwait, Libya, Algeria, and other Middle Eastern and North African sources began being developed in earnest in the 1950s and '60s. The immense oil wealth that flowed into Muslim lands during the second half of the twentieth century is the very factor that fueled the rise in Islamist (i.e., Qur'an-based) sentiment.

Max Singer, senior fellow at The Hudson Institute, writes, "The rise of terrorism by militant Islam against the United States and the West coincided with the rise in oil prices of 1979-80 and the subsequent transfer of hundreds of billions of dollars from the West to Muslim countries." Thus begins an article published on *AmericanEnergyIndependence.com* entitled: "Militant Islam is spreading throughout the world—financed by Middle East oil wealth." They report, "Islamic terrorism feeds off of the world's addiction to oil. Oil wealth in the hands of dictators and ideological extremists is financing terrorism. Oil money flowing into the Middle East finances the militant Islamic ideology that is flowing out of the Middle East oil, enriching the sponsors of terrorism. For these reasons, the war against terrorism cannot be won without *breaking free of oil dependence.*"

At first, it seemed odd to me that Yahweh would place so much of the world's oil wealth in the hands of people who hate Him—especially Muslims and Communists (or ex-communists like modern Russia). But upon reflection, it makes perfect sense (in a twisted sort of way). Under Satan's tutelage and control, these peoples accomplish next to nothing. The Soviets drove Russia into the ground, though it took them seventy years to kill that once great land. Similarly, ever since the Qur'an became widely known, poverty and malaise have been rife in Muslim lands—and the situation would have remained so, had not petroleum been discovered there (discovered by Westerners, ironically enough—people laboring under the Judeo-Christian ethos, whether or not they were actually believers). America blew through much of its easily accessed oil defending Europe during World War II (the prophetic result of which was to provide Israel with a homeland in Canaan for the first time in a couple of millennia). Ironically, it is only now that we Americans have left our first love—the Kingdom of God—that we have again become oil-rich via new recovery technologies.

In other words, God's timetable for the Last Days apparently *required* that the evil in the world be given a kick in the pants so that the myriad of prophecies we

discussed in *The End of the Beginning* could begin to come to pass—all at once. Oil is being used by God as a lubricant and a catalyst—it helps things (or *makes* things) slide into place, on His schedule and according to His plan. If you think about it, this is merely the latest in a long string of historical incidences in which God gave the "bad guys" a leg up in order to achieve His sovereign will—from using the Babylonians to take out the Assyrians (and punish Judah) to allowing Hitler's Germany to walk all over post-Christian Europe in order to bring Israel back home again. It's usually opaque to us in real time, but our God knows *exactly* what He's doing—and in many cases, He even revealed the "bottom line" in prophetic scriptures, as we have seen a thousand times over.

Anyway, the *American Energy Independence* article continues: "The Organization of Petroleum Exporting Countries (OPEC) produces about 40% of the world's oil today, which translates to OPEC getting 40 cents on every dollar paid for oil anywhere in the world. Current OPEC members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, UAE, and Venezuela. All are Islamic countries except Venezuela which [being run by Communists] has partnered with Iran." OPEC, then, is one big happy Satanic family, philosophically speaking (except of course for the happiness).

"In the year 2007, over 700 billion dollars flowed into OPEC from oil hungry countries around the world. How much of that money was given to support terrorist organizations? From September 2007 through October 2008, the world economy was rocked by the unprecedented transfer of over one trillion dollars from European, Asian and American economies into Middle East national treasuries in exchange for oil. Even with reduced, yet still high, oil prices, OPEC countries received \$600 billion from oil exports in 2009 and are expected to take in more than \$800 billion in 2010...." More recent data pegs OPEC revenues (not counting Iran) at \$933 billion for 2011, \$982 billion for 2012, and declining slightly to \$940 billion in 2013.

"Islamic terrorism, as a global threat to civilization, cannot sustain itself without the massive oil revenue that finances it. (That does not mean their feelings and beliefs will not remain; it just means they will have limited influence without the oil wealth.) Islamic militancy is emboldened by the perception of power and dominance that Islam gains from the world's dependence on oil—oil that the world must get from Arab countries. Eliminate world oil dependence and the Islamic extremists will be deflated psychologically." Okay, so it's not terribly practical as strategies go. Petroleum as fuel is not going to be eclipsed by something else any time soon. And besides, I have a feeling that "psychologically deflating" the Islamists is the least of what Yahweh has planned for them.

It is my considered opinion that God gave to Muslims their vast oil wealth (and to Communists, and yes, to apostate post-Christian societies as well) so that their true colors might be shown. It's sort of like winning the lottery: as long as someone is forced by circumstances to plod along in the same old job just to make ends meet, you can't count on the realities of his daily life being an accurate reflection his dreams and desires. But give that same guy a hundred million bucks, and in short order his true nature will surface. He may prove to be narcissistic, greedy, and paranoid, or he might turn out to be generous, compassionate, and loving. Money can be a magnifying glass that reveals our true natures—and especially our spiritual proclivities.

This holds true for nations as well as individuals, of course. In an article that appeared in *Forbes* (January 8, 2013), technology entrepreneur Ryan Lackey answers the question, "Why have the Islamic countries failed to develop, even with resources like oil, while countries with no resources, like Switzerland, have flourished?" I personally would have chosen Israel as the shining example of what a people can accomplish without vast natural resources to exploit, but okay.

Lackey writes, "Outside of oil and gas projects and a few specific infrastructure projects (ports like Jebel Ali and airports like Dubai), far less real economic development has happened in the oil-rich parts of the Arab world than would be expected based on their great endowment of human and natural resources.... Overall, the local standard of living has improved dramatically. Walking around Dubai or even a moderately sized city anywhere in the region shows a reasonable standard of living, especially compared to a few decades ago. All those shiny new condo buildings, huge hypermarkets, highways, etc.

"However, it's all consumption of energy wealth, not evidence of other productive economic activity.... There is a huge qualitative difference between an economy built on natural resource extraction, where the populace is a cost center, and an economy built on productive labor by the population, where increasing capabilities of the society leads to more wealth. If you look at western countries, plus Japan, Taiwan, Korea, and increasingly, China, they largely developed through manufacturing, initially low cost, low value-add manufacturing, moving up the chain, and ending up with vibrant, well-educated [populations], and diverse economies. (Even though Japan has demographic challenges, it will still be the #3 economy in the world in 2030.) The alternative is an extractive economy like Argentina, which went from 10th in the world in 1930 to a basket case for the past 80 years. That's not to say that natural resource endowment hasn't helped some countries (like the US), but *natural resource economies, in the absence of local value creation, don't tend to lead to well-developed societies.* 

"Wealth in a resource-based economy is distributed much more unequally and more inefficiently. It goes to a small number of people at the top, and they're at the top due to tribal, family, or political connections, not due to skill or productivity. In a vibrant, competitive manufacturing economy, wealth tends to accrue to innovators and efficient operators, and someone with a new idea or better way of doing things has a chance to get to the top. Admittedly, this is imperfect even in the US, but still, it's a better system than political patronage....

"Outside simple products and services for local consumption...what local development that has happened [in Muslim oil-rich nations] has been economically inefficient—building empty skyscrapers in the desert. This has been largely directed by government, or influential families affiliated with government, and financed by huge capital flows from oil/gas and foreign investment from Russia, South Asia, and other parts of the Arab or Muslim world, and not the product of real free enterprise. Essentially, these investments don't produce wealth; they're just a way to store wealth generated elsewhere, as a form of regulatory arbitrage. Even crazier, most of the labor, including skilled labor, to build buildings and operate companies is imported, too—labor from China and Pakistan, accountants from the Philippines, advertising executives from the Levant, and engineers and architects from the UK and US...."

Mr. Lackey goes on to list—from a business perspective—why oil-rich Muslim nations can't seem to build healthy economies, even after they've been blessed with such a promising head start. He writes, "There are a few likely reasons energy wealth hasn't been sufficient to push these countries toward greater and more robust development:

(1) "Resource curse ("Dutch Disease"). Essentially, anyone smart goes into oil/gas, or if smart *and* lazy, into oil/gas ministry jobs; and anyone seeking safe investment returns tends to invest in oil/gas, where a great return is likely. Having some resources is better than no resources, but having resource-based industries dominate your economy crowds out all other investment." It's basically the same mindset Muhammad inflicted upon his followers: he taught them that it's easier to rob caravans and sack villages than it is to farm the land, build products, and work for a living. Fourteen hundred years later, nothing has changed.

(2) "Anti-intellectualism and anti-science bias of modern fundamentalist Islam. Clearly it's not the case that Islam itself is hostile to science; after all, for hundreds of years, the Islamic world was the standard-bearer for world scientific knowledge and progress. Yet, education in many Muslim countries consists primarily of religious rather than scientific programs, and those who do get quality educations in the west tend to remain overseas." What Mr. Lackey has failed to factor in is the corrupting influence of the Qur'an—which was largely absent from the scene during Islam's so-called "golden age." Allah, it would seem, is not happy unless people are miserable and ignorant.

(3) "Women as second-class citizens. It's not just that women can't contribute directly to the workforce (although that's a big factor), but that women aren't educated to the same standard, and thus aren't able to raise children to be

scientists and engineers as effectively. This is one area where great progress has been made, but there's a generational lag." The closer one is to Muhammad's heart, the worse he treats the women in his life—whom he decided were nothing but chattel, good only for sexual recreation (making rape a sport, instead of a crime), procreation, and manual labor.

(4) "Geopolitical instability. In general, lack of stability doesn't lead people to make long-term investments in the future. If you're worried the world is going to end, you're going to enjoy life now (to the extent possible), not sacrifice a lot to potentially have a better future. A high level of fatalism and lack of feeling of agency has never helped entrepreneurship." This too is a direct legacy of Islam, in which Allah's presumed will and predestination are the driving psychological forces. There is practically nothing one can do to influence his eternal destiny in Islamic theology—everyone's fate was determined by what might be described as "Adam's back rub" (al-Tabari I-305, Qur'an 56), when Allah *pre-determined* the fate of everyone to be descended from Adam over the centuries. The "right handers" (of whom there are few) get all the good stuff, while the products of Allah's left hand—the vast majority—are doomed to hell's torments, no matter what they do. One's beliefs or behavior (short of martyrdom while killing infidels) have no bearing on his eternal status in Islam. And there is no such thing as forgiveness of sins, no atonement, no reconciliation with god.

(5) "Antiquated legal environment (largely based on old UK law without update, merged with Sharia), which is not really compatible with modern business. Setting up a business takes a long time, requires local partners, etc.—not a free market. There are efforts to have different law for some countries (the Dubai free trade zones are great examples—Jebel Ali in the 70s was probably the first major development of its kind), but the law outside business still needs revision." It's worth noting that Sharia law cannot be found in the Qur'an. It must be gleaned piecemeal from the Hadith and Sunnah—the words and deeds of Muhammad—proclamations that were designed to give "the Prophet" some temporal advantage or to keep his followers compliant. English common law, meanwhile, was based (far too loosely, I'm afraid) on Judeo-Christian tradition which is antithetical to Sharia at every turn. No wonder *dar al-Islam's* "antiquated legal environment" doesn't work. It's schizophrenic, and off its meds.

(6) "Corruption. It's a combination of an inefficient official process and a small number of wealthy and powerful families, able to either change the law as needed, or ignore it. If you ever get into a dispute with a local national, you're going to lose. If local nationals of different levels of power ("*wasta*") get into a dispute, it's usually decided on the basis of connections [rather than] the merits of the case." In Islam, tribal affiliations are infinitely more important than national considerations, and personal gain (again, mirroring Muhammad's example)

trumps all. This explains why inbreeding is so rampant in Islamic society especially in places like Saudi Arabia: it is presumed that no one is to be trusted who isn't a close family member—so it is common to marry one's sister or cousin. This explains why you can sometimes barely get your feet wet in the Muslim gene pool.

(7) "High cost of failure. If someone launches a new business and it fails, there's a high degree of shame and loss of social standing, but even worse, potential prison time for any debts personally guaranteed. Compare this to Silicon Valley where an entrepreneur with a few failed businesses is generally viewed as 'experienced.'" At its heart, the problem here is the Islamic view toward forgiveness—it's nonexistent. Despite all the rhetoric about Allah being "merciful," there is no evidence that mercy in any form exists in Islam. The vast majority of Muslims (according to their own theology) are predestined to hell fire—no matter how well they do in this life. Compare this to the concept of repentance that's endemic in Christianity: God is willing and ready to forgive us if we will acknowledge our sins (i.e., our missing of the target of His perfection) and receive His grace.

(8) "I'd also argue that their hostility to Israel—and thus Jews—actually hurts them a lot, as some of the most dynamic tech and business people in the US are Jewish—they and their firms are unlikely to do business where they're not welcome." Qur'an-influenced Muslims hate Jews simply because Muhammad (after a brief flirtation with them—ending with their rejection of his ridiculous Messianic pretensions) hated them, envied their success, and set a precedent by killing or enslaving every Jew in the Arabian Peninsula.

"It's especially interesting what is *not* on this list. Islam is certainly not inherently opposed to development and progress—there's the shining example of the classical period of Islamic civilization [which we've exposed previously as the achievements of Islam's conquered nations, not of Muslims themselves, except as collectors], and the huge number of successful Muslim scientists, engineers, entrepreneurs, and business people in the US, Europe, and elsewhere." Muslims, for all their erroneous spiritual proclivities, are no more or less intelligent than anybody else (except, of course, where genetic inbreeding has taken its toll). Traditional Islamic religion (declaring Allah to be god with Muhammad his messenger, ritual prayer, paying the *zakat* tax, daytime fasting during Ramadan, and pilgrimage to Mecca) doesn't ordinarily get in the way of living an ordinary self-centered (if not greed-driven) life. It is only when the Qur'an (the supposed words of Allah himself) are taken to heart that poverty, pain, and destruction follow one's footsteps in this life.

Mr. Lackey concludes, "Democracy isn't on the list either—we have great examples of non-democratic economic successes (China, and if you extend to one-party democracy, Singapore), and of democratic non-successes (India pre-1990s)." In other words, the lack of democracy isn't what's preventing *dar al-Islam* from pursuing productive economic activity. As I've opined elsewhere, democracy is little more than mob rule in a three-piece suit. It is only as good as the attitudes and agenda of the voting public.

Not to put too fine a point on it, once a citizenry has turned its back on God once the majority has decided that it can steal what it wants from the minority without regard to Yahweh's absolute truth—then that nation is as good as finished. As with other forms of government—monarchies, dictatorships, theocracies, oligarchies, even anarchies—the welfare of the people will only be as good as the leaders' true intentions. A kind king is to be preferred to a democracy in which the majority has voted to enslave themselves in ignorance and greed; an enlightened dictatorship is better than a corrupt republic. But in the end, human nature ensures that all human governments are fatally flawed. The only *perfect* government will be that of Yahshua the Messiah—the prophesied thousand-year reign of God Himself in human form. His administration will have no flaws, because He is flawless. That is not to say everyone born during the Millennium will like it.

But I digress. We were considering why oil-rich Muslim nations can't seem to develop self-sustaining economies that could continue to function and thrive even if (or when) the oil were no longer there to exploit. My conclusion is that from day one, Islam was built on a philosophy of piracy and plunder, not the providence of God and the virtue of hard work. When the oil becomes scarce (as it must) *dar al-Islam* will not revert to their nomadic roots, nor will they join the Jews and Christians in working to make the world a better place. They will, rather, pick up the scimitar once again, and attack somebody who still has something worth stealing.

## Game Changer #2: Fracking

Alarmists have been telling us since the 1970s that we're running out of oil. As it turns out, that's not entirely true. What we're running out of is *easy* oil—the sort of thing that characterized the early days of oil exploration in Pennsylvania or Texas, where you could practically produce a gusher by poking a stick in the ground. The *really* easy fields were discovered and sucked dry a century ago. For the past half century or so, the *relatively* easy oil fields of the Middle East, Russia, and America (both north and south) have been fueling the world. At the same time, techniques were being developed to extract crude from offshore sites.

As time has marched forward and as demand has increased (in tandem with both population growth and increasing worldwide prosperity) the known oil reserves have been depleted and the newly discovered sources have proven harder to extract and more difficult to refine. All of this has tended to push the price of the end products upward. Gasoline prices today are about ten times what they were when I learned to drive—and it's not all just inflation (or manipulation). The actual product also costs more to get out of the ground and into my gas tank. There's one silver lining to today's high fuel costs: at these prices, it is possible to invent, perfect, and employ oil extraction techniques capable of reaching heretofore inaccessible or impracticable petroleum deposits—those locked up in tar sands or shale, for example.

From the prophetic point of view, this is a total game-changer, primarily because of one factor. By far the biggest newly discovered oil and gas deposits are found not in Muslim lands, but in North America and Israel—known in *dar al-Islam* as "the Great Satan" and "the Little Satan," respectively. (I'll be discussing the newly-discovered Israeli resources under a separate heading.) In time, this one issue will bring to light—all by itself—the treason that resides today in the halls of power in the U.S. government (and, unless I miss my guess, will continue well into the foreseeable future). And that will go a long way toward explaining why America's continued influence over world affairs isn't even *hinted at* in prophetic scripture: the *de facto* hegemony we've wielded for the past century is as good as gone.

Until quite recently, you see, one could make the case that we must "play ball" with the oil-rich Arab-Muslim countries because we need their oil to run our economy. This concept gives plausible "cover" to those politicians who would support Palestine over Israel, for instance: *We can't appear to be antagonistic toward the Muslims, for fear they'll cut off the oil*. Never mind that our oil money has been the single largest (and perhaps the only significant) source of funding for jihadist-terrorist causes for the past half century. Never mind that the Saudis are (rightly) far more terrified of the Shiite Mullahs in Iran than they are of the Israelis (who have had nuclear weapons for fifty years but have never threatened to use them against anyone).

The United States has lately developed a bad case of paranoid schizophrenia. On the one hand, we've spent—*wasted*—hundreds of billions of dollars backing hopelessly inefficient green-energy boondoggles—at least partially (according to the prospectus) because we needed to achieve "energy independence." Even the New-World-Order socialists who run our government can see that the more energy we must import (especially from those who hate us on principle, like *dar al-Islam* and Communist Venezuela) the more vulnerable we are. But at the same time, we (well, *they*) have adamantly refused to develop or exploit the abundant natural resources that lie beneath our feet—coal and oil-bearing shale deposits. The Obama administration is waging an active and vigorous war on coal, and the

only shale oil deposits being tapped in America are on private property—not Federal lands.

Why? If energy independence were really a priority for our government, we would be drilling like crazy, using the new hydraulic fracturing technology that makes accessing the oil more feasible than ever before. It wouldn't necessarily bring fuel prices down much (since fracking is a relatively expensive process, and one that must be done carefully if safety is to be maintained) but it would make our nation energy supply invulnerable to boycotts and foreign wars. The tipoff to this administration's real agenda lies in its illogical refusal to approve construction of the Keystone pipeline project (which would transport the newly recovered crude from North Dakota and Canada to the refineries in the South). There is no good reason for *not* proceeding with this project. It would add tens of thousands of high paying jobs to the economy while providing a safe, proven means of oil transport. The unions—Mr. Obama's biggest supporters—are all for it. Even the environmentalists' studies can't seem to find fault with the project, since the alternative—hauling the oil by trucks or rail—is a more perilous pollution proposition than the pipeline would ever be.

No, there can only be two reasons why our government would refuse to drill for the oil we know is there and refuse to build the Keystone pipeline to transport it. (1) They're purposely trying to weaken this nation, or (2) they're supporting the cause of Islam—which in turn is sworn to destroy us. Either way, it's treason. Environmentalism is a red herring in this case-it has nothing to do with energy realities. If there weren't scores of indicators-both scriptural and secularconspiring to inform us that a paradigm shift of "Biblical proportions" is poised to descend upon the world during the fourth decade of the twenty-first century, I would be shocked and dismayed at the direction the United States is going, and at the insane agenda its "leaders" are pursuing. But as it is, a weakened, apostate, self-destructive America—though not overtly prophesied—seems to be a logical requisite for the Last Days events foretold in Scripture. If Isaiah 18 speaks of America (as I believe it does), we are portrayed as having been "pruned back" like a diseased and unruly grapevine—having our promising potential lopped off for our own ultimate good. So although I'm saddened beyond comprehension, I'm not particularly surprised at our impending demise.

Let us, then, take a look at this technology that is bringing Satan's Last Days agenda into focus, if only we'll consider its ramifications. *Wikipedia's* article on Hydraulic Fracturing gives us the nuts and bolts: "Induced hydraulic fracturing (hydrofracturing, also commonly known as fracking) is a mining technique in which a liquid (in most cases water) is mixed with sand and chemicals and the resultant mixture is injected at high pressure into a wellbore. This creates small fractures in the deep rock formations, typically less than 1mm wide, along which

gas, petroleum and brine may migrate to the well. Hydraulic pressure is removed from the well, then small grains of proppant (sand or aluminum oxide) hold these fractures open once the rock achieves equilibrium.

"The technique is very common in wells for shale gas, tight gas, tight oil, and coal seam gas and hard rock wells. This well stimulation is usually conducted once in the life of the well and greatly enhances fluid removal and well productivity, but there has been an increasing trend towards multiple hydraulic fracturing as production declines.

"The first experimental use of hydraulic fracturing was in 1947, and the first commercially successful applications were in 1949. As of 2012, 2.5 million hydraulic fracturing jobs have been performed on oil and gas wells worldwide, more than one million of them in the United States." It should be noted that these statistics demonstrate two things: we have moved far beyond the "experimental" stage with this technology, and America is the epicenter for its promise.

"Proponents of hydraulic fracturing point to the economic benefits from the vast amounts of formerly inaccessible hydrocarbons the process can extract." As I mentioned, there is something to be said for being energy independent. OPEC's oil embargo in the early 1970s should have taught us that being at the mercy of *anyone*—especially those who are sworn to destroy us—is probably a bad idea, if it can be avoided.

That being said, fracking is neither easy nor risk free. It must be done with great care, following carefully crafted industry guidelines if environmental disaster is to be avoided. Truthfully, though, the same thing can be said of virtually *any* energy source, whether based on fossil fuels (probably a misnomer, by the way) or renewable energy sources. I don't care whether you're considering conventional oil drilling, coal mining, hydroelectric dams, geothermal energy, nuclear power, solar, or wind—*all of them* have potential (or proven) pitfalls. Let us not forget the "acceptable avian losses" the government is willing to take with wind farms. The Deepwater Horizon oil spill of 2010 demonstrated the risks of operational complacency, even if the drilling techniques are well established. And the Fukushima nuclear disaster a year later should have taught us that there is no such thing as "safe enough." (Who *plans* for a nearby 9.0 magnitude earthquake and resulting tsunami, anyway?) We haven't had too many hydro-power dam disasters in the U.S., but elsewhere the litany is long and sobering. Topping the list, I suppose, would be the Banqiao Dam disaster in China (1975). 26,000 people died from direct flooding, and another 145,000 perished from subsequent famine and epidemics, while 11 million people were left homeless.

So not surprisingly, "Opponents of hydraulic fracturing point to environmental risks, including contamination of ground water, depletion of fresh water, contamination of the air, noise pollution, the migration of gases and hydraulic fracturing chemicals to the surface, surface contamination from spills and flow-back, and the possible health effects of these.... For these reasons hydraulic fracturing has come under international scrutiny, with some countries protecting it, and others suspending or banning it. Some of those countries, including most notably the United Kingdom, have recently lifted their bans, choosing to focus on regulation instead of outright prohibition. The European Union is in the process of applying regulation to permit this to take place." The growing consensus seems to be that as tricky as hydraulic fracturing seems to be, the rewards are worth it. Without it, the world could well find itself back on a bicycle (or a horse) in a few decades.

More information is provided by *EnergyFromShale.org*. "Hydraulic fracturing, or fracking, has played an important role in the development of America's oil and natural gas resources for nearly 60 years. In the U.S., an estimated 35,000 wells are processed with the hydraulic fracturing method; it's estimated that over one million wells have been hydraulically fractured since the first well in the late 1940s. Each well is a little different, and each one offers lessons learned. The oil and natural gas production industry uses these lessons to develop best practices to minimize the environmental and societal impacts associated with development." I would add that until relatively recently, fracking was considered too expensive to employ widely. Until 9/11/2001, oil prices hovered in the neighborhood of \$30 per barrel. But now it's over \$100, and the end of the upward trend is nowhere in sight. At these prices, absorbing the extra expense of hydraulic fracturing is quite feasible.

"Studies estimate that up to 80 percent of natural gas wells drilled in the next decade will require hydraulic fracturing to properly complete well setup. Horizontal drilling is a key component in the hydraulic fracturing process. In short, this makes it possible for shale oil extraction to produce oil and natural gas in places where conventional technologies are ineffective. Hydraulic fracturing involves the use of water pressure to create fractures in rock that allow the oil and natural gas it contains to escape and flow out of a well. This process takes place under tight regulatory control....

"In a hydraulic fracturing job, 'fracturing fluids' or 'pumping fluids' consisting primarily of water and sand are injected under high pressure into the producing formation, creating fissures that allow resources to move freely from rock pores where it is trapped. Typically, steel pipe known as surface casing is cemented into place at the uppermost portion of a well for the explicit purpose of protecting the groundwater. The depth of the surface casing is generally determined based on groundwater protection, among other factors. As the well is drilled deeper, additional casing is installed to isolate the formation(s) from which

oil or natural gas is to be produced, which further protects groundwater from the producing formations in the well."

Needless to say, protecting the groundwater from contamination is the central safety issue with this mining technique. Most of the large recent oil finds are far below the aquifer, which explains why multiple redundant systems are put in place to isolate the water from the oil drilling process. "Casing and cementing are critical parts of the well construction that not only protect any water zones, but are also important to successful oil or natural gas production from hydrocarbon bearing zones. Industry well design practices protect sources of drinking water from the other geologic zone of an oil and natural gas well with multiple layers of impervious rock. While 99.5 percent of the fluids used consist of water and sand, some chemicals are added to improve the flow. The composition of the chemical mixes varies from well to well....

"The process of bringing a well to completion is generally short-lived, taking only 70 to 100 days for a single well, after which the well can be in production for 20 to 40 years. The process for a single horizontal well typically includes four to eight weeks to prepare the site for drilling, four or five weeks of rig work, including casing and cementing and moving all associated auxiliary equipment off the well site before fracturing operations commence, and two to five days for the entire multi-stage fracturing operation. Once completed, the production site is reduced to about the size of a two-car garage. The remainder of the site is restored to its original condition and the environmental benefits, such as reduced air and greenhouse gas emissions, last for decades. Local impacts, such as noise, dust, and land disturbance, are largely confined to the initial phase of development...."

Unfortunately (considering the rapidly deteriorating state of our aquifers—see Appendix 5) quite a bit of water is used in the process: "Water accounts for about 90 percent of the fracturing mixture and sand accounts for about 9.5 percent. Chemicals account for the remaining one half of one percent of the mixture. There are several ways oil and natural gas companies manage the use of fracturing fluids, depending on what specifically is in them, the presence of usable groundwater or surface waters, geography, and local, state, and federal regulations."

They make it sound easy. Let me assure you, it isn't. "Spent or used fracturing fluids are normally recovered at the initial stage of well production and recycled in a closed system for future use or disposed of under regulation, either by surface discharge where authorized under the Clean Water Act or by injection into Class II wells as authorized under the Safe Drinking Water Act. Regulation may also allow recovered fracturing fluids to be disposed of at appropriate commercial facilities. Not all fracturing fluid returns to the surface. Over the life of the well, some is left behind and confined by thousands of feet of rock layers." As with most things in life, fracking offers a trade-off. On the negative side, fracking is (like most energy technologies) fraught with risk. It can be done safely, as far as we can tell, but the potential pitfalls are serious. One of the most often cited is the leakage of methane or drilling chemicals into the aquifer, making the local drinking water toxic to some extent—and perhaps even flammable. As drillers have gained experience and knowledge, this factor has been minimized. There is (possibly) a seismic threat as well, something I'll address in a moment. And finally, environmentalists hate the idea of large quantities of crude being transported by rail (or worse, by trucks). But there is a simple, proven solution to this one—simply build the Keystone pipeline.

On the plus side, fracking offers the prospect of billions of barrels of otherwise-unrecoverable oil and trillions of cubic feet of natural gas that we would otherwise be unable to retrieve. The patriot in me rejoices that the biggest deposits found so far are in North America and Israel—something that could conceivably make both the U.S. and Israel far less vulnerable to Muslim (and Russian) shenanigans. But since America is a post-Christian society, and Israel is a pre-redeemed nation, perhaps my enthusiasm is misplaced.

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As I'm sure you'll recall, "earthquakes in various places" were prophesied in the Olivet Discourse as one of the signs heralding the Last Days. And there has been a measurable increase in the numbers of small earthquakes in regions in which oil is being extracted using hydraulic fracturing. Bryan Walsh opines in *Time Magazine* (May 1, 2014) that "New research indicates that wastewater disposal wells—and sometimes fracking itself—can induce earthquakes." So far, the problem is theoretical—based on little more than statistics—but it's an issue that bears watching. Is it a question of coincidence or improved seismic tracking, or is there really something to worry about?

Walsh writes, "Ohio regulators did something last month that had never been done before: they drew a tentative link between shale gas fracking and an increase in local earthquakes. As fracking has grown in the U.S., so have the number of earthquakes—there were more than 100 recorded quakes of magnitude 3.0 or larger each year between 2010 and 2013, compared to an average of 21 per year over the preceding three decades. That includes a sudden increase in seismic activity in usually calm states like Kansas, Oklahoma and Ohio—states that have also seen a rapid increase in oil and gas development. Shale gas and oil development is still growing rapidly—more than eightfold between 2007 and

2012—but if fracking and drilling can lead to dangerous quakes, America's homegrown energy revolution might be in for an early end.

"But seismologists are only now beginning to grapple with the connection between oil and gas development and earthquakes.... Wastewater disposal wells—deep holes drilled to hold hundreds of millions of gallons of fluid produced by oil and gas wells—may be changing the stress on existing faults, inducing earthquakes that wouldn't have happened otherwise. Those quakes can occur tens of miles away from the wells themselves, further than scientists had previously believed. And they can be large as well—researchers have now linked two quakes in 2011 with a magnitude greater than 5.0 to wastewater wells....

"The vast majority of wastewater disposal sites and oil and gas wells weren't connected to increased quake activity—which is a good thing, since there are more than 30,000 disposal wells alone scattered around the country. But scientists are still trying to figure out which wells might be capable of inducing strong quakes, though the sheer volume of fluid injected into the ground seems to be the driving factor. (That's one reason why hydraulic fracturing itself rarely seems to induce quakes—around 5 million gallons, or 18.9 million L, of fluid is used in fracking, far less than the amount of fluid that ends up in a disposal well)....

"So far the quakes that seem to have been induced by oil and gas activity have shaken up people who live near wells, but haven't yet caused a lot of damage. But that could change if fracking and drilling move to a part of the country that already has clear existing seismic risks—like California, which has an estimated 15 billion barrels of oil in the Monterey Shale formation that could only be accessed through fracking."

As usual, it's shaping up to be a battle between the environmentalists (to whom *any* amount of risk is unacceptable) and the entrepreneurs (who know you can't make an omelet without breaking a few eggs). My position is that they're both right—*and* they're both wrong. That is, on the one hand, the earth and its bounty are gifts from God that we are instructed to preserve and defend, even as we "subdue" them (see Genesis 1:28)—the essence of good stewardship. On the other hand, if we ban fracking altogether, the world could begin running out of easily accessible oil and gas by, say, the fourth decade of the twenty-first century—a timeframe that continues to present itself as the focal point of so many lines of inquiry.

If a total ban were to be imposed, the political and military ramifications would be, shall we say, "interesting." By any foreseeable metric, the world's appetite for fuel will not have abated. How will the politicians and princes react when their citizens can no longer afford to drive their cars or heat their homes when desperation sets in, and anarchy raises its ugly and unpredictable head? One need not be a genius (nor a Bible scholar) to anticipate **"wars and rumors of wars,"** or that "Nation will rise against nation, and kingdom against kingdom. And there will be famines and pestilences...." (Matthew 24:6-7) Those things are in evidence even without major oil shortages—how much more so if we voluntarily cut off our own fuel supply?

But if, in an effort to head off these inevitable events, governments throw caution to the wind and begin fracking with gleeful abandon, they will quite possibly have to contend with **"earthquakes in various places"** (v.7). No matter what they do, the word of God will be proven true in the end. As far as fracking is concerned, the kings of the earth may be quite literally "damned if they do, and damned if they don't."

The question on my mind is: will the fracking we'll do during the next couple of decades have any effect on the spate of major—dare I say, *unprecedented*—earthquakes that are prophesied for the Tribulation years? Two of them come to mind immediately. First, during the Magog war (perhaps two years into the Tribulation): "Surely in that day there shall be a great earthquake in the land of Israel, so that the fish of the sea, the birds of the heavens, the beasts of the field, all creeping things that creep on the earth, and all men who are on the face of the earth shall shake at My presence. The mountains shall be thrown down, the steep places shall fall, and every wall shall fall to the ground." (Ezekiel 38:19-20). Could it be that Israeli fracking today will be used by God to trigger a seismic "weapon" against the invading Muslim hordes? At the very least, the scenario positively reeks with irony.

And second, the "big one." This worldwide earthquake will, I believe, occur five days before the end—prophesied in the sixth seal judgment ("...and every mountain and island was moved out of its place." Revelation 6:14), the seventh trumpet judgment ("And there were lightnings, noises, thunderings, an earthquake, and great hail." Revelation 11:19), and the seventh bowl judgment ("And there was a great earthquake, such a mighty and great earthquake as had not occurred since men were on the earth.... Then every island fled away, and the mountains were not found." (Revelation 16:18, 20)

I can't really see how fracking could *cause* these earthquakes, but it is altogether possible that the earth's crust will be rendered more vulnerable at strategic locations because of the activities of man between now and the Tribulation. One thing is certain: the prophecies will come to pass precisely as God revealed them—no matter what we decide to do.

## Game Changer #3: Israeli Oil and Gas

As long as the vast majority of the world's oil and gas reserves were in the hands of *dar al-Islam* and their Communist allies, the fiction could be maintained that all the Muslims had to do to drive Israel to the brink of extinction was to wait

them out. Nibble away at the edges. Keep up the international P.R. campaign designed to make the Jews look like the devil himself to those who buy the lies put forth by a gullible world press. Keep firing Katyusha rockets (bought with American and European petro-dollars) at Israeli civilians from the Gaza Strip and Southern Lebanon. Send the occasional pair of suicide bombers to an Israeli bus stop or restaurant. Keep them on edge. Wear them down. Out-breed them (*See*? Women *are* good for something), and then, like a python, simply squeeze the life out of them.

This tactic (in case you haven't noticed) hasn't worked any better than the Muslims' sporadic attempts to invade Israel with huge armies trying (for reasons not even *they* can explain) to drive her into the sea. Every time they've tried that, they lost territory and assets. In fact (since we're talking about energy issues) after the Six-Day War of 1967, Israel held Egypt's oil-rich Sinai Peninsula for ten years—before allowing themselves to get talked into giving it back. (I'd like to believe they returned it to their enemy because they realized that Yahweh had never deeded it to them, but in fact, they don't seem to know *what* their borders are supposed to be: they ceded the Gaza Strip to the Palestinian Arabs in 2005, though God's definition of Israeli land in Numbers 34 clearly included it. Sigh.)

No, since their founding in 1948, Israel has—without any significant mineral resources of their own to exploit—built the most robust economy and the freest society in the entire Middle East (and that includes people of religions other than Judaism). Their remarkable prosperity is due to their propensity for hard work, innovation, insight, their respect for education, and their tenacity in the face of adversity, hatred, and hardship. God has preserved them—miraculously at times—but He hasn't handed them material success on a silver platter.

Until now. The time has come, it appears, to "up the ante." There were hints in Scripture, of course, that there might be oil in Israel. Writing of an incident that took place near the Dead Sea some four thousand years ago, Moses reports: "Now the Valley of Siddim was full of asphalt pits; and the kings of Sodom and Gomorrah fled; some fell there, and the remainder fled to the mountains." (Genesis 14:10) The word for "asphalt" here (Hebrew: *chemar*—tar or bitumen) is also used to describe the material that was used as mortar at the building of the Tower of Babel (in present day Iraq) and the sealant used in baby Moses' ark of bulrushes (in Egypt)—both places where oil has been discovered in recent decades.

A synonym (used along with *chemar* to describe the waterproofing on Moses' floating bassinet in Exodus 2:3) is the Hebrew *zepheth* (tar, pitch, or bitumen—a "black, sticky substance used for waterproofing—*Baker & Carpenter*). This description of surface tar takes on dire prophetic significance in reference to Edom (southern Jordan), for the Prophet Isaiah writes of Edom's demise on the day of judgment: "For it is the day of Yahweh's vengeance, the year of recompense for the

cause of Zion. [Edom's] streams shall be turned into pitch [*zepheth*], and its dust into brimstone. Its land shall become burning pitch [*zepheth*]. It shall not be quenched night or day. Its smoke shall ascend forever. From generation to generation it shall lie waste. No one shall pass through it forever and ever." (Isaiah 34:8-10) This picture is reminiscent of Kuwait's oil fields, set on fire out of spite by Saddam Hussein's retreating troops in 1991—a black, smoking hell on earth.

Since "Edom" is within Israel's neighbor Jordan, we shouldn't be too surprised to find confirmation of this oil's presence in the secular press. Jon Mainwaring, writing for *Rigzone* (May 2, 2014) informs us, "Israel also has a very significant onshore opportunity in the shape of oil shale—oil trapped in rock that is extracted using heat as well as drilling. Israel and neighboring Jordan sit on the second-largest deposits of oil shale in the world after the United States." For what it's worth, the Valley of Siddim (mentioned above in Genesis 14:10) straddles the present boundary line between Israel and Jordan.

Mr. Mainwaring, unfortunately, has no clue about the Muslim mindset toward other people's wealth. He writes, "Since natural gas was first discovered offshore Israel in 1998, the country has seen the growth of an oil and gas industry that promises to provide not only an economic boost to the country itself but could also prove to be a diplomatic tool that can be used to build better relations with some of its neighboring states." *Better relations?* No, I'm afraid not. Muhammad's example taught them to steal everything they could belonging to Jews, and his instructions were thus: "Just issue orders to kill every Jew in the country."—*the Hadith of al-Bukhari* (repeated in the *Sunnah*, in both *Tabari* and *Ibn Ishaq*) No, to a Qur'an-compliant Muslim, Israel's mineral wealth merely makes them a more enticing target. Hate *and* greed: a potent combination.

At last, Ezekiel's description of the *motivation* of Gog's Islamic hordes makes sense: "Thus says the Lord Yahweh: 'On that day it shall come to pass that thoughts will arise in your mind, and you [Gog of the land of Magog] will make an evil plan: You will say, "I will go up against a land of unwalled villages; I will go to a peaceful people [Israel, dwelling under the security guarantees of the Antichrist's "covenant with many" (see Daniel 9:27)], who dwell safely, all of them dwelling without walls, and having neither bars nor gates"—to take plunder and to take booty, to stretch out your hand against the waste places that are again inhabited, and against a people gathered from the nations, who have acquired livestock and goods, who dwell in the midst of the land." Until quite recently, there was nothing much worth stealing in Israel—their wealth, which is considerable, was due mainly to Israeli intellect, entrepreneurial spirit, and good old fashioned hard work. But now, with their newly discovered oil and gas reserves, there is finally something in Israel of intrinsic value. "Sheba, Dedan, the merchants of Tarshish, and all their young lions will say to you, 'Have you come to take plunder? Have you gathered your army to take booty, to carry away silver and gold, to take away livestock and goods, to take great plunder?"" (Ezekiel 38:10-13) "Livestock and goods...silver and gold" I take to mean anything of value, anything worth stealing. Oil and gas would fill the bill quite nicely. Iran (Gog's probable home base) has plenty of its own oil, but no fewer than four of Gog's allies—Meshech, Tubal, Gomer, and Togarmah—are located in oil-poor Turkey.

Speaking of the comparative speed of Israel's oil and gas development, Mainwaring goes on to quote Joshua Beagelman (the Chief Operating Officer of Universal Oil & Gas), explaining that "Cyprus may have made a few discoveries but it hasn't developed them yet, while Lebanon is still at a very early exploration stage. 'So, Israel in that region is the only country with production online at the moment.' Indeed, the time taken for the Tamar field from discovery in 2009 to production of first gas in March 2013 is demonstrative of why Israel should be on more international oil and gas firms' radar screens, according to Beagelman. 'It took them four years to get to the production stage. That's up there as one of the fastest-ever turnarounds of a deep-water discovery. This showcases a lot of things: it demonstrates Israel's infrastructure and it shows that they can go to production in a short space of time in an emerging oil and gas market. In other emerging markets, that process can take double the amount of time, or even longer."

Even before the Tamar field came online, *National Geographic News* published an article (July 3, 2012) thinking ahead to the next logical step. It's entitled "New Natural Gas Wealth Means Historic Change for Israel—Key Question: How Much to Export?" Sharon Udasin (the energy and environment correspondent for *The Jerusalem Post*) writes, "The newfound offshore gas fields of Tamar, Leviathan, and Tanin give Israel a historic chance at energy independence and could transform the region's geopolitics...." Yes, suddenly, there's booty to be had there, just as Ezekiel predicted. "Israel's northern port city of Haifa has been a crucial energy center for decades; refineries dating back to the British Mandate in this land have long processed the oil sent by pipeline or shipped here from abroad. Today, rigs are working off Haifa's coast to tap the first major fossil-fuel reserve ever found in Israel's territory, a store on which it hopes to build a far more independent energy future.

"The Tamar natural gas field was discovered in 2009 some 50 miles (80 kilometers) off Haifa's coast in the Mediterranean Sea. There are perhaps scores of known gas fields bigger than Tamar, with its estimated 250 billion cubic meters (9 trillion cubic feet) in reserves; Alaska's North Slope, for instance, is believed to hold four times as much fuel. But Tamar is large enough to meet all of Israel's natural gas requirements for 20 to 30 years, the experts say." To put that in perspective, "20 years" would fall within the timeframe to which we've been led so often in this study—the fourth decade of the twenty-first century.

"This unprecedented offshore bonanza expanded dramatically the following year when another field, Leviathan, almost double the size of Tamar, was discovered another 30 miles (48 kilometers) to the west. (A smaller field, Tanin, with an estimated 33.9 billion cubic meters—1.2 trillion cubic feet—in natural gas, was discovered nearby earlier this year.) With natural gas scheduled to begin flowing from Tamar next year [2013], and from Leviathan about four years later, Israel is on the brink of a historic shift. Instead of being an energy-scarce nation amid Middle East oil giants, many of them hostile, Israel now faces a future as a fuel producer in its own right—likely as an exporter and supplier to some of its neighbors, a development that could dramatically alter the region's geopolitics." Yes: it makes them more volatile than ever.

"Israel's foreign and domestic policy no longer will be intertwined with the question of securing adequate fuel supply. Now it will face a quite different challenge—managing the nation's newfound energy abundance. 'This is going to change the overall way of the economy of Israel,' says Shaul Zemach, director general of Israel's Ministry of Energy and Water Resources. 'It's like a domino—it's going to have a domino effect on all of the markets.' Quite simply, he said, it's a 'game changer.'"

"Israel has depended on energy imports since its founding in 1948, and the political conflict between the Jewish state and its Arab neighbors and Iran has been riddled with strife over oil resources." Basically, the more "Islamist" one's outlook, the less likely he is to be willing to sell fuel to Israel—at any price. That explains why Israel has been getting her oil from the North Sea and Venezuela, not neighboring Saudi Arabia and nearby Iraq. "Only during the decade following the 1967 war, when Israel gained control of the Sinai Peninsula's oil fields, did the nation produce a significant share of its own fuel. When Israel surrendered Sinai as part of its peace treaty with Egypt, it secured assurances both from Egypt and the United States on future energy supply." In other words, they were willing to trade a bird in the hand for the promise of one in the bush. The God who protects her, of course, knows that neither the U.S. nor Egypt can be trusted to keep their word.

"An outgrowth of that pact was Egypt's 2005 agreement to provide natural gas to Israel via pipeline. Two small offshore gas fields in the Mediterranean had begun providing natural gas to Israel in 2004. But within just a few years the conduit from Egypt across the Sinai Desert was providing half of Israel's gas supply. The risks of such foreign reliance became clear after last year's [i.e., 2011's] ouster of Egypt's longtime leader Hosni Mubarak. The pipeline has been sabotaged 14 times since the uprising, rendering it essentially unusable." Not to mention proving Egypt to be unreliable as a gas supplier. So, "In April, in what was at that point a symbolic gesture, Egypt formally cancelled the deal. Thanks to

the development under way off the coast of Haifa, Prime Minister Benjamin Netanyahu's response was unruffled: 'We have gas reserves that will make Israel totally energy independent, not only from Egypt, but from any other source,' he said.

"Like many nations, Israel has been working to increase use of natural gas and reduce its dependence on coal, which now provides about 70 percent of the nation's power." Israel imports its coal from Australia, South Africa, and Columbia. "The new supply from Tamar and Leviathan can aid in the shift to a fuel that can produce electricity with fewer toxic pollutants and half the carbon dioxide emissions of coal. The government also sees potential for natural gas to replace oil as a transportation fuel. And, because it is a key feedstock in the petrochemical business, it is expected to spur new industry.

"If it's played right, it's an economic opportunity for Israel, in public health and environmentally,' says Brenda Shaffer, an expert on energy policy and management at the University of Haifa. But she strikes a note of caution, especially because the enormous size of Israel's energy prize has led, inevitably, to planning for sale of natural gas abroad. 'Energy export is always a two-headed sword,' Shaffer says...." She then cautions against the sort of thing we noted above, in which Islamic oil has fostered export economies totally dependent on their mineral wealth—with no corresponding industry that doesn't in some way depend on oil. Somehow, though, I can't see Israel falling into the trap of resource-economy malaise: they have far too much on their minds for that—high tech industry, medical and scientific innovation, and even world-class agricultural prowess, not to mention the constant threat of being swallowed whole by their envious Muslim neighbors. No, it's not in the modern Israeli playbook to grow complacent and lazy.

Author Udasin, refreshingly, seems to have a good handle on the political realities of Israel's new oil resources: "Energy wealth will complicate already tense Middle East relations. Lebanon, which has no agreed-upon maritime (or land) border between Israel, has asked the United Nations to intervene to prevent Israel's energy drive from encroaching on its undefined territorial waters as it prepares to launch its own offshore energy exploration. Meanwhile, the island Republic of Cyprus, 300 miles (480 kilometers) from Israel's coastline in the Mediterranean, has its own large natural gas discovery. With Noble Energy, an oil company based in Houston, Texas, a major stakeholder in both the Israel and Cyprus finds, the two nations are in talks on how to coordinate development and potential export. But Turkey, which has *de facto* control of the northern part of Cyprus and doesn't recognize the Cypriot government, has begun energy exploration too." Turkey's involvement complicates things, at least potentially. Remember, at least four of the nations named in the Magog federation (which is

prophesied to invade Israel—Ezekiel 38) define modern Turkey, which has in recent days begun to turn from its historically "moderate" stance to a more fundamentalist (i.e., Islamist) form of Islam.

The rest of the article is primarily concerned with the issue of what to do with the oil and gas—use it domestically, or export it for sale. Those who are realistically attuned to Israel's historic vulnerability lean toward keeping large reserves at home, while the energy companies, not surprisingly, would like to see a larger proportion sold abroad (something that would, on balance, increase the fuel costs for Israeli consumers, not to mention their vulnerability). For now, there seems to be enough to go around, but if our research in other matters is accurate, that picture will change dramatically by the fourth decade of the twenty-first century.

The most efficient way to move large quantities of natural gas long distances is to convert it to liquid form—LNG, or liquefied natural gas—which may then be shipped all over the world in tankers. The problem is that building an LNG facility can be quite expensive—in the neighborhood of \$5 billion. "Gideon Tadmor, chairman of Delek and chief executive of Avner, said the region's politics necessarily become part of the economic calculations. 'If we would've been elsewhere in the world, obviously the most efficient thing to do would be to have reverse flow from Israel to Egypt to be liquefied in its facility there,' he said. 'But we are not elsewhere. We are in the Middle East, and we are all aware of the challenges of our relationship with Egypt.'"

The LNG terminal in Egypt is currently running at only 40% capacity, so the potential for mutual benefit is obvious. And who knows? With the Muslim Brotherhood in Egypt's dog house once again, perhaps a deal can be struck. Still, it's amazing how the envy, greed, and irrational hatred of one evil man who lived fourteen hundred years ago still has the capacity to stifle progress and cooperation today. On the other hand, it is equally remarkable how the unfathomable love of *another* Man, living two thousand years ago, made it possible for the whole world to live in peace, if only we would hear Him. But alas, the world—most of it—doesn't want to hear Him, heed His teachings, or receive His salvation. So the events of the Last Days will play out precisely as Yahweh's scriptures insist they must. After all, free will (by God's design) is ours to exercise, at least for now. Just because He knows which path we're going to take, it doesn't mean He's happy about it.

Although Israeli oil wealth wasn't specifically prophesied in scripture, it is, in retrospect, a perfect fit for the prophecy we do have, in which Last Days Israel is depicted as a "land of unwalled villages," rich with tempting treasures that will prove irresistible to the acquisitive Muslim hordes. It will matter not that many of her neighboring adversaries have their own mineral wealth. Part of the curse of

envy is that other people's blessings are perceived as an intolerable affront. Well did Yahweh command us: "You shall not covet."

# Political "Correctness" and Junk Science

The U.S. government website *GlobalChange.gov* paints a dire picture: the earth is heating up, and we're to blame because we use fossil fuels like coal and oil. But have no fear: the government is ready to step in to save us from ourselves: They say, "Climate change is happening now. The U.S. and the world are warming, global sea level is rising, and some types of extreme weather events are becoming more frequent and more severe. These changes have already resulted in a wide range of impacts across every region of the Nation and many sectors of the economy. Today, America needs reliable scientific information about current and future changes, impacts, and effective response options...." Mind you, most of what is published here is either unwarranted extrapolation or outright lies—as we shall soon discover. But let us allow them to have their say:

"Evidence from the top of the atmosphere to the depths of the oceans, collected by scientists and engineers from around the world, tells an unambiguous story: the planet is warming, and over the last half century, this warming has been driven primarily by human activity—predominantly the burning of fossil fuels.... U.S. average temperature has increased by 1.3°F to 1.9°F since 1895, and most of this increase has occurred since 1970. The most recent decade was the Nation's and the world's hottest ever recorded, and 2012 was the hottest year on record in the continental United States. Temperatures are projected to rise another 2°F to 4°F in most areas of the U.S. over the next few decades." The implication is that if we all stop burning fossil fuels, all will be well.

"Climate change means more than hotter weather. Certain types of extreme weather events with links to climate change have become more frequent and/or intense, including prolonged periods of heat, heavy downpours, and, in some regions, floods and droughts. In addition, warming is causing sea level to rise and glaciers and Arctic sea ice to melt. Oceans are becoming more acidic as they absorb carbon dioxide from the atmosphere, and climate change is impacting biodiversity and disrupting ecosystems." Never mind the inconvenient fact that glaciers and Arctic sea ice *aren't* melting, but are actually growing. Never mind that the biodiversity of the oceans is actually being destroyed by overfishing and nitrate run-off from artificially fertilized farmland, not by CO<sub>2</sub> emissions (see my chapter on "Famine Factors").

Never mind the *facts*. The problem, our government says, is all those *people*: "Multiple lines of independent evidence confirm that *human activities* are the primary cause of the global warming of the past 50 years. The burning of coal, oil,

and gas, and clearing of forests have increased the concentration of carbon dioxide in the atmosphere by more than 40% since the industrial revolution, and methane and nitrous oxide emissions from agriculture and other human activities add to the atmospheric burden of heat-trapping gases...." Gee, no wonder the "humanists" are on record as wanting to use any means necessary to kill 90% of the earth's human population.

"Global temperatures are still on the rise and are expected to rise further. Climate change will accelerate significantly if global emissions of heat-trapping gases continue to increase...." While the "rising temperatures" claim is a baldfaced lie (they've been level or falling for the past twenty years or so), atmospheric carbon dioxide concentrations actually *have* been rising, as is claimed. The only logical conclusion we can draw is that CO<sub>2</sub> is *not* a major contributor to runaway global warming, nor is that "other" essential greenhouse gas—*water vapor*. But it doesn't suit the government's agenda to admit that the climate might be influenced by something (like solar activity) that is totally beyond human control (something they can't tax, regulate, or put in prison).

It amuses me to observe how God has messed with these earth worshipers. If they're not *totally* stupid, they *know* that CO<sub>2</sub> is not a major cause of global warming—that heavy solar (sunspot) activity plays a much larger role. But their wealth redistribution scheme demands a villain they can pretend to regulate, so carbon dioxide is the bad guy upon which they've settled. Since CO<sub>2</sub> levels *are* rising, they presumed they could simply watch the eleven-year sunspot cycles (when average global temperatures could be safely predicted to be at their peak) and blame the resulting "thaw" on CO<sub>2</sub>, leaving no one the wiser. The previous solar peak was in 2001-2002, so they figured things would be sufficiently toasty by 2013. They therefore confidently predicted that the North Polar ice cap would have completely melted by the summer of 2013.

What happened? The solar max of 2013 failed to materialize—sunspot activity was far lower than had been expected, meaning the surface temperatures on Earth were correspondingly cooler. And almost a million square miles of ice were *added* to the Arctic polar ice cap by the autumn of 2013. Well did the prophet Isaiah report: "I am Yahweh, who makes all things, who stretches out the heavens all alone, who spreads abroad the earth by Myself; who frustrates the signs of the babblers, and drives diviners mad; who turns wise men backward, and makes their knowledge foolishness." (Isaiah 44:24-25)

But don't take my word for it. Listen to these scientists who have debunked the CO<sub>2</sub>-global warming myth, tying average global temperature instead to solar activity—or the lack of it. Our government, it seems, is counting on us being unable to sort out the technical jargon. But the facts are there: "A relatively localized small-amplitude solar influence on the upper atmosphere could have an important effect, via the nonlinear evolution of atmospheric dynamics, on critical atmospheric processes." –Lam, Chisham, Freeman (British Antarctic Survey) Small changes on the sun can produce large temperature shifts here on Earth— and throughout our solar system. "The sun's output varies not by a minuscule 0.1%, but by a whopping factors of 10 or more. This can strongly affect the chemistry and thermal structure of the upper atmosphere."—Tony Phillips (NASA Solar Physicist)

2013 was supposed to mark the peak of the normal eleven-year sunspot cycle, but what is actually happening? "Solar activity is declining very fast at the moment, we estimate faster than at any time in the last 9300 years."—Mike Lockwood (Professor of Space Environmental Physics at Reading University, UK) What's happening? "The sun's current maximum activity period is very late and very weak, leading to speculation that the sunspot cycle itself could be shutting down or entering a dormant phase."—Craig DeForest (American Astronomical Society) Where, then, are we headed? "It all points to perhaps another little ice age. It seems likely we are going to enter a period of very low solar activity and it could mean we are in for very cold winters." –Ian Elliot (Dublin Institute for Advanced Studies)

So the climate is changing, all right, but it's getting cooler, not warmer; and it has nothing to do with mankind's consumption of fossil fuels. But forgive me for interrupting the government's tale of global warming woe. Again. *GlobalChange.gov* goes on to say, "Climate change is affecting the American people in far-reaching ways. Impacts related to climate change are evident across regions and in many sectors important to society—such as human health, agriculture and food security, water supply, transportation, energy, ecosystems, and others—and are expected to become increasingly disruptive throughout this century and beyond. As the impacts of climate change become more prevalent, Americans face decisions about how to plan and respond. Using scientific information to prepare for climate change can create economic opportunities, and proactively managing the risks can reduce impacts and costs over time." In case you don't comprehend government double-speak, that means, "Trust us. Our scientists are gods. We know what's best for you. Pay your taxes and go back to sleep."

The facts of the case, as I said, would beg to differ. *ClimateDepot.com* (in an article by Marc Morano, May 7, 2014) weighed in on a recent Federal climate report, calling it a "600-page litany of doom." The headline reads: "Weather Channel Co-Founder John Coleman slams Federal climate report: A 'total distortion of the data and agenda driven, destructive episode of bad science gone berserk." Something tells me Mr. Coleman (whose livelihood, unlike most "climate people," is not dependent on toeing the government line) isn't buying it.

"Coleman: 'When the temperature data could no longer be bent to support global warming, they switched to "climate change" and now blame every weather and climate event on CO<sub>2</sub> despite the hard, cold fact that the "radiative forcing" theory they built their claims on has totally failed to verify.""

He explains: "The current bad science is all based on a theory that the increase in the amount of carbon dioxide in the atmosphere from the exhaust of the burning of fossil fuels leads to a dramatic increase in 'the greenhouse effect' causing temperatures to skyrocket uncontrollably. This theory has failed to verify and is obviously dead wrong. But the politically funded and agenda driven scientists who have built their careers on this theory (and live well on the 2.6 billion dollars a year of Federal grants for global warming/climate change research) cling to this theory and bend the data spread to support the glorified claims in their reports and papers." As they say, follow the money.

The article is accompanied by a chart that demonstrates that there has been *no global warming* in the 17 years and 9 months between August, 1996 and April, 2014 (the latest data available when the article was written). Coleman opines, "The climate of Earth has *never* been 'normal' or stable. It has continuously changed through this planet's 4.5 billion year history. Powerful storms, floods, droughts, heat waves and ice and snow storms have come and gone as long as Earth has existed."

Writing for the *Pittsburgh Post-Gazette* (May 29, 2014), Jack Kelly reports, "The first five months of 2014 have been the coldest since the National Weather Service began keeping records in 1888. If 'climate change' alarmists got out more, they might have noticed. Between 1979—when weather satellites started measuring temperatures in the lower troposphere—and 1997, they rose about 1.1 degrees Celsius (1.98 degrees Fahrenheit). Temperatures stopped rising then, have fallen since 2012. The 'pause' in warming (212 months) is now longer than the warming trend was (211 months).

"The earth has warmed about 16 degrees F since the last ice age. The net increase since 1979—0.19 degrees C (0.34°F)—is well within the range of natural fluctuation. So why, as President Barack Obama says so often, do 97 percent of scientists agree climate change is 'real, man-made, and dangerous?' They don't. This bogus stat is derived from two questions University of Illinois researchers asked in a survey of earth scientists in 2008: 1. 'When compared with pre-1800s levels, do you think that mean global temperatures have generally risen, fallen, or remained relatively constant?' 2. 'Do you think human activity is a significant contributing factor in changing mean global temperatures?' The researchers culled from 3,146 responses those of 79 climate scientists who'd been published in peer reviewed journals. 76 answered "risen" to the first question; 75 "yes" to the second. Temperatures *have* risen since the Little Ice Age ended around 1870,

skeptics agree. Most think the activities of humans have some effect on them. The key question is *whether that effect is big enough to do harm*, but that's not what the scientists were asked.

"John Cook, climate communication fellow (a publicist, not a climate scientist) at the University of Queensland in Australia and eight colleagues examined abstracts of 11,944 articles on climate published between 1991 and 2011. 'Among abstracts expressing a position... 97.1 percent endorsed the consensus position that humans are causing global warming,' they concluded in a paper last May. Which is as meaningless as the "consensus" in the two-question survey, for the same reason. Even skeptics agree humans cause some warming. Mr. Cook *et al.* included papers by prominent skeptics Willie Soon, Craig Idso, Nocola Scafetta, Nir Shaviv, Nils-Axel Morner and Alan Carlin in their 97.1 percent 'consensus.' Only 41 papers (0.3 percent) explicitly state support for Mr. Cook's assertion that humans have caused *most* of the warming since 1950, found former Delaware state climatologist David Legates and three colleagues in a peer reviewed study last September. 'It is astonishing that any journal could have published a paper claiming a 97 percent climate consensus when on the authors' own analysis the true consensus was well below 1 percent,' Mr. Legates said." Somebody's been cooking the books. The question is: *why*?

"Carbon dioxide in the atmosphere has increased from about 285 parts per million 250 years ago to about 380 ppm today.  $CO_2$  is a 'greenhouse' gas—it holds heat in the atmosphere—so if humans are generating more, it should have a warming effect. *But probably not much of one*. Greenhouse gases comprise less than 1 percent of the earth's atmosphere; carbon dioxide is less than 4 percent of all greenhouse gases; and 96 percent of  $CO_2$  in the atmosphere was put there by Mother Nature. Compared to variations in solar radiation and other natural forces, the effect of greenhouse gases on climate is trivial." And if you'll recall, our study of deforestation in an earlier chapter revealed that fully half of the anthropogenic release of  $CO_2$  into our atmosphere in recent years is due to the ongoing decimation of the earth's rainforests—*not* the production of energy. Any rational approach to the global reduction of  $CO_2$  emissions should begin there.

"There is no convincing scientific evidence that human release of carbon dioxide, methane, or other greenhouse gases is causing, or will cause in the foreseeable future, catastrophic heating of the Earth's atmosphere and disruption of the Earth's climate,' says a petition signed by more than 31,000 American scientists in climate-related disciplines. That's rather more than 79 or 41. There is no scientific consensus on human-caused global warming, and there shouldn't be. 'If it's science, it isn't consensus,' said Mr. Soon, a solar expert at the Harvard-Smithsonian Center for Astrophysics. 'If it's consensus, it isn't science.' Scientists search for truth by observation and experimentation, not by taking polls. Consensus is a political concept. The skeptics are true to the scientific method. The abusers of science are those who politicize it."

As if all that weren't bad enough, it has also recently come to light that the temperature readings upon which all the global warming hype was based were manipulated—fudged by people whose agenda "needed" a warming earth to gain traction. Writing for *The Telegraph*, (June 21, 2014) Christopher Booker reports: "When future generations try to understand how the world got carried away around the end of the 20th century by the panic over global warming, few things will amaze them more than the part played in stoking up the scare by the fiddling of official temperature data. There was already much evidence of this seven years ago, when I was writing my history of the scare, *The Real Global Warming Disaster*. But now another damning example has been uncovered by Steven Goddard's US blog *Real Science*, showing how shamelessly manipulated has been one of the world's most influential climate records, the graph of US surface temperature records published by the National Oceanic and Atmospheric Administration (NOAA).

"Goddard shows how, in recent years, NOAA's US Historical Climatology Network (USHCN) has been "adjusting" its record by replacing real temperatures with data 'fabricated' by computer models. The effect of this has been to downgrade earlier temperatures and to exaggerate those from recent decades, to give the impression that the Earth has been warming up much more than is justified by the actual data. In several posts headed 'Data tampering at USHCN/GISS,' Goddard compares the currently published temperature graphs with those based only on temperatures measured at the time. These show that the US has actually been *cooling* since the 1930s, the hottest decade on record; whereas the latest graph, nearly half of it based on 'fabricated' data, shows it to have been warming at a rate equivalent to more than 3 degrees centigrade per century.

"When I first began examining the global-warming scare, I found nothing more puzzling than the way officially approved scientists kept on being shown to have finagled their data, as in that ludicrous 'hockey stick' graph, pretending to prove that the world had suddenly become much hotter than at any time in 1,000 years. Any theory needing to rely so consistently on fudging the evidence, I concluded, must be looked on not as science at all, but as simply a rather alarming case study in the aberrations of group psychology." How charitable. I'd simply call it fraud.

I find it rather ironic that the same people who rejoice over Galileo's ultimate vindication in the face of ignorant religious dogma are so reluctant to challenge the politically driven agenda of "climate change." (Galileo demonstrated that the earth was not the center of the universe—as the Catholic Church adamantly

insisted, though the Bible itself said nothing of the sort.) I guess what they fail to see is that their master (the holder of the purse strings, the research grants, and the tenured professorships) is *still* the "state religion"—no longer Galileo's Roman Catholic Church, but now the atheistic secular-humanist establishment. Cross *them*, and you can kiss your funding goodbye.

Bear in mind that the only reason we're discussing "climate change" at all here is its presumed relationship to the energy issues upon which our mobile, electricity-dependent way of life depend. Note, however, that God never promised that His blessings would include fast cars, airplanes, computers, cell phones, and a plethora of kitchen appliances. Yes, the angel told Daniel that at the time of the end, **"Many shall run to and fro, and knowledge shall increase."** (Daniel 12:4) but God's foreknowledge of future events doesn't imply His proactive involvement, only His permission. Alas, man's inclination to follow God has not improved with the advent of modern mobility and communication technology. Quite the opposite, it would appear.

I'm not saying that harnessing energy for the benefit of mankind is a bad thing. Like so many other factors, it is spiritually neutral—what we do with it is up to us. There is something to be said for not having to spend every waking moment providing ourselves with food, water, and shelter. I, for one, would hate to have to go back to writing with a quill on parchment. (I'm slow enough as it is.) I *like* my computerized research tools, my air conditioning, and my ergonomic chair. I *like* being able to trade emails with friends I've never actually met in Nigeria, Brazil, or Australia. I *like* the idea of publishing my thoughts on the Internet, free to anyone who wants to read them. "Progress" isn't necessarily a bad thing, but too often, we waste the free time it gives us—time that might have been better used helping others than amusing ourselves.

But such ruminations are rather beside the point. Our energy-hungry labor saving devices, communication tools, and mobility machines are a fact of life. We can't un-invent them. They are the products of the creative nature within man, part of what it means to have been "made in the image and likeness of God: ingenuity, insight, the entrepreneurial spirit, and industrial endeavor. And like it or not, industry (in the real world) runs on fuel.

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We have briefly perused both sides of the argument. The liberal-progressives insist that our use of CO<sub>2</sub>-generating fossil fuels is causing global warming (excuse me, now it's "climate change") and if we don't stop, we will destroy the earth. The ice caps will melt, the seas will rise, the ocean currents will stop dead

in their tracks, and all life on earth will eventually grind to a halt. All because you want to drive a Chevy Suburban instead of a Honda Prius. The solutions they propose, however, don't exactly address the problem. You'd think they'd be lobbying for a return to a simple horse-drawn agrarian society, where no fuel was burned and no resources were expended. But no—they would never advocate something that entailed giving up their cell phones.

Instead, one faction advocates killing upwards of ninety percent of the humans on the planet—so the ten percent who are left can have a fighting chance. Another faction plans to sell "carbon credits" to rich polluters. According to the brochure, "the goal is to allow market mechanisms to drive industrial and commercial processes in the direction of low emissions or less carbon intensive approaches than those used when there is no cost to emitting carbon dioxide and other GHGs into the atmosphere. Since GHG mitigation projects generate credits, this approach can be used to finance carbon reduction schemes between trading partners and around the world."—*Wikipedia*. In reality, the idea is promulgated so that (1) the ruling elite can redistribute more of the world's wealth to themselves, (2) only the privileged few will be able to afford to burn fossil fuels, and (3) the poor underclass can be kept in their place.

Conservatives, meanwhile, tend to take the opposite tack. Their tack: if the science behind the global warming agenda doesn't hold up, don't impoverish yourself trying to fix something that isn't really a problem. If industry needs energy, support the production of the most efficient and plentiful sources of energy—at the moment, fossil fuels. Do what's logical, what's practical, what's efficient. If fossil fuel resources are finite (and only a fool would assume they're not) then devote a portion of the profits of your endeavor toward developing logical and practical energy solutions for future generations.

At least, that's how I see it.

Has it occurred to anybody but me that, at least as far as our work ethic is concerned, the political labels we use are completely backward? Those called "conservative" are actually pro-growth, pro-innovation, and pro-progress. They tend to be against excessive government regulation and overbearing top-down control—which in reality defines them as being "liberal." Meanwhile, those labeled "liberals" or "progressives" are nothing of the sort: they thrive on conformity, regulation, and repression of the entrepreneurial spirit—forsaking equality of opportunity in favor of equality of result. Because their methods stifle progress, they are actually working to *conserve* the status quo.

But excuse my rant. We are on the trail of an answer as to which camp has the facts on its side. So far (it seems to me) the climate-change camp has offered little but fancy statistical footwork and sincere assurances from a government who (let's face it) has proven to be, shall we say, less than forthright in the past. The

hard data seem to be falling on the side of the "drill-baby-drill" crowd. But the day is yet young. Let us consult a few more sources.

*Rense.com* published an article (December 9, 2009) entitled "Ten Facts & Ten Myths on Climate Change," by Professor Robert M. Carter, a Research Professor at James Cook University, Queensland, Australia and the University of Adelaide (South Australia). He is a palaeontologist, stratigrapher, marine geologist and environmental scientist with more than thirty years professional experience. It seems to me, his "ten facts" are not earthshaking new revelations, but merely things about which we could all stand to be reminded from time to time—they are, for the most part, self-evident (or at least, easily researched).

Fact #1. "Climate has always changed, and it always will. The assumption that prior to the industrial revolution the Earth had a 'stable' climate is simply wrong. The only sensible thing to do about climate change is to prepare for it." The evidence is widespread and plentiful, from Antarctic ice cores, to glacial moraines left over from previous ice ages, to evidence of bygone tropical vegetation in Arctic Siberia, to 16<sup>th</sup> Century little-ice-age paintings by Pieter Bruegel.

Fact #2. "Accurate temperature measurements made from weather balloons and satellites since the late 1950s show no atmospheric warming since 1958. In contrast, averaged ground-based thermometers record a warming of about 0.4°C over the same time period. Many scientists believe that the thermometer record is biased by the Urban Heat Island effect and other artefacts." And if you'll recall, Stephen Goddard's research, referenced above, demonstrates that *real* temperature readings in the U.S. (i.e., not computer-model fantasies) have not risen since their peak in the 1930s. If you're selective with your statistics, you can "prove" pretty much anything you want.

Fact #3. "Despite the expenditure of more than US\$50 billion dollars looking for it since 1990, no unambiguous anthropogenic (human) signal has been identified in the global temperature pattern." Gee, that's even more than the \$2.5 million we've been wasting every year since 1960 looking for little green men from outer space with the SETI (Search for ExtraTerrestrial Intelligence) program. Apparently, if secular humanists feel the need to prop up their sagging atheistic presuppositions in this country, no expense will be spared. I just wish they'd do it with their own money, instead of mine.

Fact #4. Without the greenhouse effect, the average surface temperature on Earth would be -18.0°C (-22.4°F) rather than the equable +15.0°C (59°F) that has nurtured the development of life." Were it not for plate tectonics, spawning volcanoes that have spewed millions of tons of greenhouse gasses like CO<sub>2</sub> and water vapor into our atmosphere, this would be a cold, dead planet. From where I sit, it appears that God has this whole climate thing balanced on a razor's edge. He made the earth specifically for our habitation (see Isaiah 45:18). "Carbon dioxide is a minor greenhouse gas, responsible for  $\sim 26\%$  of the total greenhouse effect, of which in turn at most 25% can be attributed to carbon dioxide contributed by human activity. Water vapor, contributing at least 70% of the effect, is by far the most important atmospheric greenhouse gas." Did you get that? Only about 1/16 of the total greenhouse effect on this planet is caused by human activity. And yet, for some reason, we don't see any push among the progressives to ban water.

Fact #5. "On both annual (1 year) and geological (up to 100,000 year) time scales, changes in atmospheric temperature *precede* changes in CO<sub>2</sub>. Carbon dioxide therefore *cannot* be the primary forcing agent for temperature increase (though increasing CO<sub>2</sub> does cause a diminishingly mild positive temperature feedback)." In other words, even if carbon dioxide emissions are somehow related to global warming, the government scientists have confused cause with effect.

Fact #6. "The UN Intergovernmental Panel on Climate Change (IPCC) has acted as the main scaremonger for the global warming lobby that led to the Kyoto Protocol. The IPCC is a *political*, not scientific, body." Its fatal flaw is that it is driven not by science, but by a strictly political (and leftist) agenda. There is money to be made here, and power to be grasped. Never let a crisis go to waste, even if you have to invent it yourself. "Hendrik Tennekes, a retired Director of Research at the Royal Netherlands Meteorological Institute, says that 'the IPCC review process is fatally flawed' and that 'the IPCC wilfully ignores the paradigm shift created by the foremost meteorologist of the twentieth century, Edward Lorenz." The reference is to "chaos theory," or "the butterfly effect," in which a seemingly insignificant "cause" in one place sets off a chain of unpredictable events that can produce an unexpected (and apparently unrelated) "effect" in another.

Fact #7. "The Kyoto Protocol will cost many trillions of dollars and exercises a significant impost those countries that signed it, but will deliver no significant cooling (less than .02°C by 2050, assuming that all commitments are met)." It's worth noting that signatories to the protocol saddled with *no current binding carbon emission reduction targets* include all of Latin America, Africa, the Middle East, India, China, Russia, and Southeast Asia. (The United States has signed, but does not intend to ratify the Protocol.) The only places with binding targets are the European Union, Greenland, and Australia—leaving China and India free to pollute with abandon, laughing all the way to the bank. "The Russian Academy of Sciences says that Kyoto has no scientific basis; Andre Illarianov, senior advisor to Russian president Putin, calls Kyoto-ism 'one of the most aggressive, intrusive, destructive ideologies since the collapse of communism and fascism."" Perhaps it's merely communo-fascism's new façade. After all, you can't really kill an idea like that without taking its author out of the picture: Satan remains (for the moment) free to mess with us.

Fact #8. "Climate change is a non-linear (chaotic) process, some parts of which are only dimly or not at all understood. No deterministic computer model will ever be able to make an accurate prediction of climate 100 years into the future." The single biggest factor, solar activity, is never factored in (since there's nothing puny humans can do about it anyway). This fact alone automatically makes every computer climate model a farce.

Fact #9. "Not surprisingly, therefore, experts in computer modelling agree also that no current (or likely near-future) climate model is able to make accurate predictions of regional climate change." You can get "climate scientists" to issue warnings about global warming because their funding depends on doing so. But their data is based on computer models that have been declared unreliable *by the very people who generated them*. Does that bother anybody but me?

Fact #10. "The biggest untruth about human global warming is the assertion that nearly all scientists agree that it is occurring, and at a dangerous rate." In the section above, we explored how the vaunted "97% consensus" was reached (or should I say, *perpetrated*), coming to the conclusion that the "consensus" was actually for something very different than the blanket concept that man-caused CO<sub>2</sub>-based global warming is a threat to the earth. Beware of statisticians with agendas. "The reality is that almost every aspect of climate science is the subject of vigorous debate. Further, thousands of qualified scientists worldwide have signed declarations which (1) query the evidence for hypothetical human-caused warming and (2) support a rational scientific (not emotional) approach to its study within the context of known natural climate change."

Professor Carter then goes on to list ten commonly believed global warming *myths*—providing corresponding data intended to correct the record.

Myth #1. "Average global temperature (AGT) has increased over the last few years." (The fact is that "within error bounds, AGT has not increased since 1995 and has *declined* since 2002, despite an increase in atmospheric CO<sub>2</sub> of 8% since 1995.")

Myth #2. "During the late 20th Century, AGT increased at a dangerously fast rate and reached an unprecedented magnitude. (The fact is that "the late 20th century AGT rise was at a rate of 1-2.0°C/century, which lies well within natural rates of climate change for the last 10,000 years. The average global temperature has been several degrees warmer than today many times in the recent geological past.")

Myth #3. "AGT was relatively unchanging in pre-industrial times, has skyrocketed since 1900, and will increase by several degrees more over the next 100 years (as per the Mann, Bradley & Hughes 'hockey stick' curve and its computer extrapolation)." (The fact is that "the Mann *et al.* curve has been exposed as a statistical contrivance. There is no convincing evidence that past climate was unchanging, nor that 20th century changes in AGT were unusual, nor that dangerous human warming is underway.")

Myth #4. "Computer models predict that AGT will increase by up to 6.0°C over the next 100 years." (The fact is that "*deterministic* computer models do so. But other equally valid (empirical) computer models predict *cooling*.")

Myth #5. "Warming of more than 2.0°C will have catastrophic effects on ecosystems and mankind alike." (The fact is that "a 2.0°C change would be well within previous natural bounds. Ecosystems have been adapting to such changes since time immemorial... Mankind can and does adapt to all climate extremes.")

Myth #6. "Further human addition of  $CO_2$  to the atmosphere will cause dangerous warming, and is generally harmful." (The fact is that "no humancaused warming can yet be detected that is distinct from natural system variation and noise. Any additional human-caused warming which occurs will probably amount to less than 1.0°C. Atmospheric  $CO_2$  is a beneficial fertilizer for plants, including especially cereal crops, and also aids efficient evapo-transpiration." That is, plants take in  $CO_2$  and exhale oxygen. Without atmospheric carbon dioxide, all life on earth would die.

Myth #7. "Changes in solar activity cannot explain recent changes in AGT." (The fact is that "the sun's output varies in several ways on many time scales (including the 11-, 22- and 80-year solar cycles), with concomitant effects on Earth's climate. While changes in visible radiation are small, changes in particle flux and magnetic field are known to exercise a strong climatic effect. More than 50% of the 0.80°C rise in AGT observed during the 20th century can be attributed to solar change.")

Myth #8. "Unprecedented melting of ice is taking place in both the north and south polar regions." (The fact is that "both the Greenland and Antarctic ice sheets are growing in thickness and cooling at their summit. Sea ice around Antarctica attained a record area in 2007. Temperatures in the Arctic region are just now achieving the levels of natural warmth experienced during the early 1940s, and the region was warmer still (sea-ice free) during earlier times.") I would add that after the article was written, government climate scientists were hysterically predicting that the north polar ice cap would have completely melted by the end of 2013. What actually happened was that cooler temperatures *added a million square miles* of arctic ice by the autumn of that year. The only remotely plausible explanation for this is the unexpectedly weak *sunspot cycle* during what was expected to be a normal eleven-year solar activity peak. This was, by the

way, during a period when global CO<sub>2</sub> emissions (mostly from China and India) continued to rise precipitously.

Myth #9. "Human-caused global warming is causing dangerous global sealevel (SL) rise." (The fact is that "sea level change differs from time to time and place to place; between 1955 and 1996, for example, the sea level at Tuvalu *fell* by 105 mm (2.5 mm/yr). Global average SL is a statistical measure of no value for environmental planning purposes. A global average SL rise of 1-2 mm/yr occurred naturally over the last 150 years, and shows no sign of humaninfluenced increase.") Another factor that seems to have occurred to nobody but me: we live on a planet whose landmasses are defined by plate tectonics. Everything is in motion, albeit so slowly glaciers look quick in comparison. Add to that the constantly pulsing tidal pull of the moon's gravitational field, and the elevation of one piece of coastline in relation to the nearby sea level becomes a ridiculously poor metric for gauging the effects of climate change. But as with solar flares and sunspots, there's no money to be made (or political power to be grasped) in trying to stop continental drift. CO<sub>2</sub>, however—*that* can be taxed. Hence the politically popular fiction of carbon-caused climate change.

Myth #10. "The late 20th Century increase in average global temperature caused an increase in the number of severe storms (cyclones), or in storm intensity." (The fact is that "meteorological experts are agreed that no increase in storms has occurred beyond that associated with natural variation of the climate system.") If you'll recall, we covered this subject in detail in Appendix 7: "Earth Sciences and Beyond."

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At the risk of appearing to beat a dead horse, allow me to quote from a *Forbes.com* article by Peter Ferrara (May 31, 2012) entitled "Sorry, Global Warming Alarmists, The Earth Is Cooling." He writes, "Check out the 20th century temperature record, and you will find that its up and down pattern does not follow the industrial revolution's upward march of atmospheric carbon dioxide (CO<sub>2</sub>), which is the supposed central culprit for man-caused global warming (and has been much, much higher in the past). It follows instead the up and down pattern of naturally caused climate cycles.

"For example, temperatures dropped steadily from the late 1940s to the late 1970s. The popular press was even talking about a coming ice age. Ice ages have cyclically occurred roughly every 10,000 years, with a new one actually due around now. In the late 1970s, the natural cycles turned warm and temperatures rose until the late 1990s, a trend that political and economic interests have tried to

milk mercilessly to their advantage. The incorruptible satellite-measured global atmospheric temperatures show less warming during this period than the heavily manipulated land surface temperatures.

"Central to these natural cycles is the Pacific Decadal Oscillation (PDO). Every 25 to 30 years the oceans undergo a natural cycle where the colder water below churns to replace the warmer water at the surface, and that affects global temperatures by the fractions of a degree we have seen. The PDO was cold from the late 1940s to the late 1970s, and it was warm from the late 1970s to the late 1990s, similar to the Atlantic Multidecadal Oscillation (AMO).

"In 2000, the UN's IPCC predicted that global temperatures would rise by 1 degree Celsius by 2010. Was that based on climate science, or political science to scare the public into accepting costly anti-industrial regulations and taxes? Don Easterbrook, Professor Emeritus of Geology at Western Washington University, knew the answer. He publicly predicted in 2000 that global temperatures would *decline* by 2010. He made that prediction because he knew the PDO had turned cold in 1999, something the political scientists at the UN's IPCC did not know or did not think significant....

"Easterbrook shows that by 2010 the 2000 prediction of the IPCC was wrong by well over a degree, and the gap was widening. That's a big miss for a forecast just 10 years away, when the same folks expect us to take seriously their predictions for 100 years in the future.... Because PDO cycles last 25 to 30 years, Easterbrook expects the cooling trend to continue for another 2 decades or so. Easterbrook, in fact, documents 40 such alternating periods of warming and cooling over the past 500 years, with similar data going back 15,000 years. He further expects the flipping of the ADO to add to the current downward trend.

"But that is not all. We are also currently experiencing a surprisingly long period with very low sunspot activity. That is associated in the earth's history with even lower, colder temperatures. The pattern was seen during a period known as the Dalton Minimum from 1790 to 1830, which saw temperature readings decline by 2 degrees in a 20 year period, and the noted Year-Without-A-Summer in 1816 (which may have had other contributing short term causes [like volcanic eruptions]). Even worse was the period known as the Maunder Minimum from 1645 to 1715, which saw only about 50 sunspots during one 30 year period within the cycle, compared to a typical 40,000 to 50,000 sunspots during such periods in modern times. The Maunder Minimum coincided with the coldest part of the Little Ice Age, which the earth suffered from about 1350 to 1850. The Maunder Minimum saw sharply reduced agricultural output, and widespread human suffering, disease and premature death."

As the facts debunking the "global warming / climate change" myth continue to pile up, the "scientific establishment," rather than facing the facts (and kissing

their funding goodbye) has become something of a witch-hunting cult. At least, such is the opinion of *The Weekly Standard*, in their June 16, 2014 article entitled "Climate Cultists—Has the desperate global warming crusade reached its Waterloo?"

Steven F. Hayward writes, "The climate change crusaders, who have been at it for a quarter-century, appear to be going clinically mad. Start with the rhetorical monotony and worship of authority ("97 percent of all scientists agree!"), add the Salem witch trial-style intimidation and persecution of dissenters, and the categorical demand that debate about science or policy is over because the matter is settled, and you have the profile of a cult-like sectarianism that has descended into paranoia and reflexive bullying. Never mind the scattered and not fully suppressed findings of climate scientists that the narrative of catastrophic global warming is overstated, like nearly every previous predicted environmental apocalypse. It matters not. The recent crescendo of scary government climate reports and dutiful media alarm has paved the way for the Obama administration to throw its weight around in ways that would make Woodrow Wilson blush...."

"The environmental community is so deeply invested in looming catastrophe that it's difficult to envision a scientific result that would alter their cult-like bearing. Rather than reflect, they deflect, blaming the Koch brothers, the fossil fuel industry, and Republican 'climate deniers' for their own lack of political progress. Yet organized opposition to climate change fanaticism is tiny compared with the swollen staffs and huge marketing budgets of the major environmental organizations, not to mention the government agencies around the world that have thrown in with them on the issue. The main energy trade associations seldom speak up about climate science controversies. The major conservative think tanks have no climate change programs to speak of.... The total budgets for all of these efforts would probably not add up to a month's spending by just the Sierra Club. And yet we are to believe that this comparatively small effort has kept the climate change agenda at bay. It certainly keeps climateers in an uproar.

"Instead of confronting the fact that their cause has foundered mostly of its own dead weight—and the sheer fantasy of proposals for near-term replacement of hydrocarbon energy—the climate campaigners have steadily ratcheted up their bad-faith arguments and grasping authoritarianism. The result is a catalogue of exaggerated claims and appalling clichés, the most egregious being the refrain that '97 percent of scientists "believe in" climate change.' [You'll recall that we examined above how this disingenuous statistic was invented.] This dubious talking point elides seamlessly into the implication that scientists should strive for unanimity and link arms in full support of the environmentalists' carbonsuppression agenda.... "It is clear that the climate establishment has become as narrowly intolerant as any department of gender studies on a college campus, and for much the same reason. The frenetic publicity campaigns of recent months—the hyped reports of imminent climate catastrophe and the serial exaggerations of the prognosis of the West Antarctic ice sheet, polar bear numbers, extreme weather events, and so forth—were designed to provide unstoppable momentum behind the Obama administration's remarkable assertion of executive power unveiled on June 2 (2014): regulations aimed at putting coal-fired electricity in the course of ultimate extinction in the United States.

"Using the authority of the Clean Air Act improvidently granted by the Supreme Court in 2007, the EPA is proposing a 30 percent cut in carbon dioxide emissions from power plants by the year 2030. But the proposal masks a lot of mischief.... The EPA has taken great care to construct a complicated scheme that provides plausible deniability that they are targeting coal, even though everyone knows that is the object of the exercise. The centerpiece of the scheme is a different carbon-intensity standard for each state based on its current energy profile.... The EPA strategy will constrict the economic prospects of coal-fired power such that utilities will simply shut down coal plants on their own. And if states like Indiana and Ohio calculate that the easiest way to reach their targets is to buy emissions credits from other states through a cap and trade scheme, it will amount to a wealth transfer mostly from red states to the blue states that have gone whole hog for renewable energy subsidies.

"What will it all cost? The U.S. Chamber of Commerce puts the price tag at more than \$50 billion a year, while the EPA and environmentalists preposterously claim the scheme will actually reduce energy costs for consumers, even though they can't point to a single state where their vaunted renewables have reduced energy costs. To the contrary, most states with aggressive renewable energy plans have higher than average electricity rates....

"The cruel irony for the climateers is that the more they hype the apocalypse of future climate change, the more farcically inadequate are their proposed remedies. Global primary energy demand is going to double over the next generation, and there is no one who thinks hydrocarbons—especially coal—aren't going to play a large role in providing this energy, especially in developing nations. While the EPA tries to shut down most or all of our more than 500 remaining coal plants, there are currently more than 1,000 coal plants under construction elsewhere in the world. If catastrophic climate change is somewhere in our future, the only serious remedy is to deploy new sources of affordable and abundant non- or low-carbon energy. The EPA plan does little in service of a serious energy transition; to the contrary, to the extent that it props up the inferior current renewable technologies such as wind, solar, and biomass, it will retard serious efforts to develop breakthrough energy sources.

"The real "deniers" today are the climateers who refuse to consider that their case for catastrophe has weakened even as they promote unserious solutions that do little or nothing to stimulate the genuine energy transition they say they want. Their default position continues to be simpleminded exaggeration or distortion of every possible angle for political gain.

"The best opinion polls from Pew and Gallup show that the public doesn't buy it and is suffering from a case of 'apocalypse fatigue.' The rank politicization of the issue and the relentless demonization of any critics within the scientific community are a catastrophe for science and debilitating for serious deliberation about policy. But the left is so far gone into climate madness, and the Democratic party so beholden to its green faction, that they are likely to persist in their inordinate fear of the Keystone pipeline, natural gas fracking, and the extraordinary revival of American oil production, all of which, in a relatively unmolested market, *would tend to displace coal*. Absent an unusual level of political resolve from Congress, the climate campaign may yet succeed in hobbling the electric power sector in America. That would be a high price to pay for indulging a fanatical movement that in every other respect must be reckoned a pernicious failure."

As usual, we must enquire as to *why* the "climateers" (as Hayward calls them) would want to push such an obviously disastrous—nationally suicidal—agenda on the American public. Bankrupting the nation (as their program, fully implemented, is guaranteed to do) serves no one—not even them. Emasculating America (the one constant goal of the Obama administration) makes the whole world unstable, like ripping a ship's anchor from its moorings. The progressive left's most optimistic "scientists" openly admit (as we saw above) that even if the Kyoto protocols were carried out to the letter, and even if our EPA's suicidal regulations were implemented completely, no significant progress would be made in cooling the earth—which is their stated objective—never mind what the thermometer says, and never mind that there is no reliable causal correlation between atmospheric  $CO_2$  and average global temperature.

This is not the same thing as determining why people say they want to stop pollution and global warming. Any sane person would prefer to live with clean air and clean water, in an environment that promotes health and wellness, with fertile lands and robust oceans. The atheist's utopian ideal (as far as the environment is concerned) looks pretty much like the Christian's scripture-based vision of the Millennial Kingdom. The disagreement is only about how to bring about these worthy goals. At one end of the spectrum, the hyper-Greenpeace idealist dreams of banning all fuels, fossil and nuclear, and using only power derived from "renewable" sources like the sun, wind, tides, and the heat of the earth's core—things that leave no carbon footprint. Why? Because it is taken as an article of faith that  $CO_2$ is pure evil—that it heats up the earth, melts the ice caps, kills the polar bears, and poisons the oceans—though the actual data support none of these assertions. Another unwarranted assumption embraced by this group is that fossil fuels—oil and coal—are the primary source of atmospheric  $CO_2$  on this planet, so killing these industries will solve the problem and save the environment.

The fact that it's just not true is not considered: they have been assured by their politicians that "the science is settled" and that "consensus has been reached." It has not, not even remotely. (Illogically, the use of biofuels like ethanol from corn or other plants is embraced by the environmentalists, though these too release  $CO_2$  into the air, and their creation is ridiculously inefficient, consuming about 70% of energy produced.) Practicality, reason, and logic are not part of the progressive formula. They operate instead on wishful thinking, blind faith (i.e., faith in *nothing*), and unfounded optimism.

Conservatives too want clean air and all the rest. Like the greenies, they cringe when they look at the Beijing sky, slow-flowing sewers like the Ganges River, or decaying cities like Detroit (okay, the greenies' political soul-mates, the liberal left, *caused* that disaster), and they dream of finding solutions. Clearly, the rape of the planet is an unsustainable strategy: thoughtful, logical, fact-based strategies are badly needed. But they look at the data concerning the non-existent causal connection between global warming and fossil fuels and conclude that the *real* problem lies elsewhere. Yes, great care and responsibility are needed when harvesting and utilizing the earth's mineral bounty, but saying "Thanks, God, but no thanks—your gifts stink" is not in the conservatives' vocabulary.

The two groups remind me of the Israelites of the exodus. Today's radical environmentalists are like the first generation—those who sent spies into the Land, the majority of whom came back with hyped, exaggerated tales of "giants in the Land." They refused to receive the grapes, figs, and pomegranates of the land of milk and honey—and their ungratefulness toward God manifested itself in a slow death in the wilderness. But our Conservatives remind me of Joshua's generation—those who, even knowing the challenges set before them, determined to meet them head on in Yahweh's strength and with His guidance. Did they screw up? Yes, once or twice—okay, *dozens* of times. But as long as they kept their eyes on the God who had given the Land to their ancestor Abraham in response to his faithfulness, they enjoyed the bounty of the Promised Land. The funny thing is, their parents had been *right* (sort of): there *were* giants in the land, powerful armies to defeat, and a whole new way of life to get used to. But they

had also been *wrong*. The problems were not insurmountable, as long as they followed Yahweh's instructions. How had they managed to forget about His miraculous deliverance at the Red Sea?

Listen, America: we've got a choice. Either thankfully receive the bounty of oil, gas, and coal that Yahweh has bequeathed to us, being faithful and responsible stewards of these riches, or perish in poverty in a wilderness of our own imagination.

So I'll repeat my original question: why do America's radical environmentalists persist in pushing an anti-coal, anti-oil agenda, even though their success (if they ever fully achieved it) would spell the demise of the nation? I'll offer a short list of possible motivations. I should preface my remarks by noting that self-destructive behavior is nothing new—it has been an ingredient endemic in the human condition since we left the Garden. That being said, people invariably find ways to convince themselves that the stupid things they do are right and proper: we are masters of self-deception and self-justification.

1. It's pretty obvious that America's status as a post-Christian nation has a lot to do with it. Although the atheistic secular humanists who are running the show these days hate to admit it, man is a "religious" animal. That is, it is in our nature to worship something. When we turn our backs on Yahweh, the God of the Bible and the Creator of the Universe (as the majority of "us" have), we will naturally try to fill the aching void in our lives with something else. For the run of the mill secular humanist, that would be *himself*, both as an individual and as a species. It's the classic blunder: worshiping the creature in place of the Creator.

But for those who hate the idea of God but still can't get past the idea that there's something "larger" than man (who has, let's face it, proved himself to be self-destructive and morally corrupt more often than not—traits no mere animal *ever* displayed) the concept of "Mother Nature" is invoked. It's not that "she" is personified as a goddess (usually), but, like any pagan deity, Nature is conceived to be both source and servant. That is, we would not be here without it/her, but men (being at the top of the food chain) have the power to destroy her, as well as a responsibility to save her. It's a total cognitive disconnect.

This illogical thought process of today's Earth-worshipers reminds me of the relationship of the pagan Ephesians to their favorite deity, Diana (one of dozens of ancient permutations of the Babylonian Semiramis). The idol-making silversmiths of Ephesus complained, "This Paul has persuaded and turned away many people, saying that they are not gods which are made with hands. So not only is this trade of ours in danger of falling into disrepute, but also the temple of the great goddess Diana may be despised and her magnificence destroyed, whom all Asia and the world worship.' Now when they heard this, they were full of wrath and cried out, saying, 'Great is Diana of

the Ephesians!" (Acts 19:26-28) Somehow, they couldn't see the irony of worshiping a goddess who needed their enthusiastic defense in order to survive.

The prophet Isaiah pointed out the same illogical proclivity: "Bel and Nebo, the gods of Babylon, bow as they are lowered to the ground. They are being hauled away on ox carts. The poor beasts stagger under the weight. Both the idols and their owners are bowed down. The gods cannot protect the people, and the people cannot protect the gods. They go off into captivity together." (Isaiah 46:1-2, NLT)

Today's Earth-worshipers are like that. Since (according to the brochure) life appeared spontaneously and evolved ever upward ever since without direction, intelligence, or divine intervention, Mother Nature must be a powerful force, even though she isn't *real*—having no life, personality, or volition of her own. But at the same time, she is so fragile and vulnerable, she needs our protection—mostly from ourselves. The odds against man (or any other living thing) happening by accident are beyond astronomical; yet here we are. But because God is disallowed (since they don't like the idea of being morally culpable) we must be the product of random chance. So, as the theory goes, life's accidental presence is "miraculous" enough already: the cosmic dice could never land so fortuitously again, especially since there's no one to roll them. Thus it is up to man to preserve his "god," nature.

I know. It doesn't make any sense to me, either. And it still doesn't explain why they would fabricate climate data, name a villain (CO<sub>2</sub>) who, though a plausible suspect, has been cleared of (almost) all the charges in the court of scientific inquiry, and then punish only a handful of nations for "aiding and abetting" this criminal—leaving the whole rest of the world "unindicted coconspirators." The fact is, since Og the caveman discovered fire, *every* human has contributed to the earth's carbon footprint. It therefore makes no sense to single out America and Europe as carbon culprits when China and India are blackening the sky with the stuff—without repercussion.

So perhaps there's more to it than simple pagan Earth worship.

2. Simple environmental concern (something in which we should all participate) would encourage finding *real* solutions to our anthropogenic pollution crisis, not fabricating data designed to pin the tail of blame on a donkey of our own imagination—atmospheric CO<sub>2</sub>. (I mean, at least the global elite have *a point* in expressing their desire to kill 90% of the world's population so the planet will have a fighting chance. Attributing climate change to CO<sub>2</sub>, on the other hand, is like blaming the Jews for Hitler's holocaust simply because they were *there*.) So the conspiracy theorist in me smells an ulterior motive for waging a war on fuel (at least in America), in which hydrocarbons clearly *aren't* the global-warming culprit they're made out to be.

Since liberal politicians are the only ones pushing the global warming myth, it seems to me that there are two possible explanations for their actions—their motives are either philosophical or financial. If philosophical, this could turn out to be a corollary to the back-door communist plot proposed by Cloward and Piven. In case you're not familiar with this concept, "The Cloward–Piven strategy is a political strategy outlined in 1966 by American sociologists and political activists Richard Cloward and Frances Fox Piven that called for overloading the U.S. public welfare system in order to precipitate a crisis that would lead to a replacement of the welfare system with a national system of 'a guaranteed annual income and thus an end to poverty.' Cloward and Piven were a married couple who were both professors at the Columbia University School of Social Work. The strategy was formulated in a May 1966 article in the liberal magazine *The Nation* titled 'The Weight of the Poor: A Strategy to End Poverty.'"*—Wikipedia*.

The concept was a product of the Johnson-era "great society." It was hatched at time in which all three branches of our government were dominated by Democrats, (though admittedly, Democrats in the 1960s weren't as uniformly leftist as they are today). Cloward and Piven realized that their blatantly Marxist manifesto might be "too much" for even the left-wing activists of their day. They wrote, "The ultimate objective of this strategy—to wipe out poverty by establishing a guaranteed annual income—will be questioned by some. Because the ideal of individual social and economic mobility has deep roots, even activists seem reluctant to call for national programs to eliminate poverty by the outright redistribution of income." Anybody with a brain in their head (and a firm grip on history) knows that the redistribution of income as a strategy for ending poverty doesn't work—and indeed, *can't* work as long as actual human beings are involved. The Soviets tried it for seventy years and it was an utter failure.

But the Cloward-Piven strategy is all about welfare and poverty. What does it have to do with climate change? Nothing directly, but the heart of the strategy is to crash the system so a new socialist utopia can arise from the ashes, unhindered by inconvenient capitalist economic theories, reactionary conservative principles, and the "opiate" (as Lenin put it) of Judeo-Christian morality. What if the same strategy were to be applied to energy issues? What if a way could be found to squelch the development of America's most abundant and practical fuel resources and substitute them with inefficient, unreliable, and expensive energy sources? If one were able to accomplish this to the proper degree, the energy infrastructure of the country would collapse, just as the load on the welfare system precipitated the near-bankruptcy of major cities like New York and Detroit.

But in order to achieve this dubious goal, you would have to find a common enemy, a straw man that could function as the focus of the establishment's hype and hysteria, serving to make the inefficient alternatives look good in comparison. Enter the "fall guy," CO<sub>2</sub>, a relatively innocent gas (when compared with such pollutants as anthropogenic sulfur oxides and nitrogen oxides, etc.). If one's *goal* were to destroy America, it would be hard to imagine a better "villain" upon which to project the failures of our society.

3. Follow the money. The "solution" to this imaginary problem is an idea that refuses to die, though it has been "slain" several times in the past. And it introduces us to the second possible motive for pushing an anti-CO<sub>2</sub> global warming agenda when no real causal connection exists—and the scientists know it. That motive is greed. Truly it was written, **"The love of money is a root of all sorts of evil."** (I Timothy 6:10)

This "dragon" that has been repeatedly slain in this country, and yet continues to arise from the dead, is the idea of selling (or trading) carbon credits—the so-called "cap and trade" system. One "global electronic trading platform serving the compliance and voluntary carbon markets" (their terminology) is *CarbonTradeXchange.com*, which explains in plain English (more or less) what it's all about. First, a definition of the "unit" itself: "A carbon credit represents one ton of carbon dioxide equivalent either removed, avoided or sequestered." They offer the following Q&A session to help us learn the lay of the land:

#### "How are carbon credits created?

"The carbon market can be divided into two: the voluntary market and the regulatory (compliance) market. In the compliance market, carbon credits are generated by projects that operate under one of the United Nations Framework Convention on Climate Change (UNFCCC) approved mechanisms such as the Clean Development Mechanism (CDM)." There's our first clue: this is a U.N.-driven scheme. The whole point, therefore, is to bring all of the world's peoples and nations together under one political umbrella—an all-powerful entity some would call the New World Order. The only thing preventing this from becoming reality is the collective incompetence of the United Nations. But if you'll recall, my conclusion from studying prophetic scripture was that the U.N. will fall under the spell—not to mention control—of the Antichrist. I believe the famous "covenant with many" of Daniel 9:27—the event that will serve as the starting gun for the Tribulation proper—will most likely be a United Nations resolution. This isn't *really* about saving the planet. It's about power and money—as usual.

Anyway, "Credits generated under this mechanism are known as Certified Emissions Reductions (CERs).... Carbon credits differ from carbon allowances although the term carbon credit is interchangeably used to represent both. Although in most cases they both represent one ton of carbon dioxide equivalent, allowances do not originate from carbon projects but are allocated to companies under a 'cap and trade' system such as the EU Emissions Trading Scheme—therefore, they represent the *right to emit*." Did you catch that? You can, under

this system, *buy* the right to pollute, to spew CO<sub>2</sub> into the air—to cause (*gasp*!) global warming. So in reality, this has little or nothing to do with reducing atmospheric carbon dioxide, but rather is simply a scheme designed to redistribute wealth from the richer nations and companies to the poorer ones—making the middlemen as rich as Croesus in the process, of course.

#### "How do carbon credits impact global emissions?"

"Carbon credits are an immediate answer to reducing the amount of Green House Gas (GHGs) emissions in the atmosphere." Their own "right to emit" policy outline above would beg to differ. "The generation and sale of carbon credits funds carbon projects which would not have gone ahead [otherwise, at least in theory]. Carbon credits also help lower the costs of renewable and low carbon technologies as well as assisting in the technology transfer to developing countries." Again, it's taking away wealth (this time in the form of technological assistance) from people who have built their worlds with ingenuity, investment, and sacrifice, and "transferring it" to those who have done nothing to earn it. It's Marxism on steroids, designed to reduce the whole world to a moribund state of dystopia—an equality of poverty.

## "What are the different types of carbon projects?

"Carbon credits can be generated from various types of projects including:

1. "Renewable energy: a switch from fossil fuels to a 'clean' energy e.g. wind and solar energy." The Obama administration threw hundreds of billions of dollars—*borrowed* dollars—at such green boondoggles, only to see them fail, one by one. Why? Because they just can't compete with fossil fuels on a level playing field. The socialists, as usual, are attempting to engineer outcomes according to their philosophical proclivities, rather than merely ensuring fairness.

2. "Forestation and afforestation: The planting of new trees, as trees sequester and store  $CO_2$  (e.g. forest regeneration)." As long as you're so all-fired anxious to rule the world, how about beginning by doing something to stop the rape of the rainforests—the source (as we have seen) of fully *half* the total anthropomorphic  $CO_2$  emissions in the world today.

3. "Energy efficiency: reducing emissions though an increase in energy efficiency, e.g. installation of energy-efficient machinery." Any capitalist could agree with this, as far as it goes. Efficiency is usually a good thing. But stealing from me so you can buy a fuel-efficient truck for somebody on another continent isn't exactly my definition of "being efficient."

4. "Methane capture: avoiding methane emissions through capture and burning to create energy, e.g. landfill methane capture." Landfill design and construction is an area where great technological strides have been made over the past few decades. As organic waste biodegrades, methane and other gasses are released, so it's a good thing if we can capture the methane and use it as fuel: winwin. It's worth noting, however, that one of the biggest unharnessed sources of methane being released into the atmosphere is from bovine respiration—cow burps (not to mention gaseous emissions from the other end). It makes one wonder about the methane level in Liberal-Progressive brain farts.

5. "Project eligibility for carbon credits depends on whether a project follows one of the Kyoto Protocol's project-based mechanisms or an independent voluntary standard." Again, we are reminded that they're not interested in environmental responsibility *per se* as much as in the *appearance* of progress, administered through the politically correct uneven playing field of the Kyoto environmental standards. As I said, it's all about the exercise of power and the seizing of other people's money. Somehow, I don't think I'll be awarded any "carbon credits" for "sequestering" the carbon in the woods surrounding my home by not cutting down the trees.

### How are carbon credits issued?

"All projects listed on CTX are certified, verified and registered, ensuring that actual emission reductions take place before the credits are issued thus providing a secure and transparent environment for carbon trading. The process of getting credits issued varies depending on the credit type i.e. (CERs vs. VERs). However, below is a very general overview of the process a project developer needs to follow before credits can be issued:

1. "The selection of an approved methodology which quantifies the GHG benefits of a project. 2. The development of a Project Design Document (PDD) which describes the whole project in detail including the project crediting period and the demonstration of 'additionality.' 3. An independent auditor reviews the PDD and validates the project. 4. The project is monitored to ensure that GHG reductions are occurring. 5. The monitoring reports are verified by an independent auditor. 6. The project gets credits issued into an appropriate registry account." As long as you have enough bureaucrats on the job spouting indecipherable mumbojumbo, and you use a sufficient number of three-letter acronyms, all is well. Or so they'd like you to believe.

### "Where are carbon credits held?

"Carbon credits are stored electronically in 'registries.' Registries are essential for issuing, holding, and transferring carbon credits. Once a carbon project is issued with credits, the registry gives each one a unique serial number so that they can be tracked through their entire life-cycle. Registries also facilitate the retirement (surrendering) of credits for carbon neutrality purposes, ensuring credits are not resold at a later date." The foxes are in charge of guarding the hen house, and the farmer gets to pay their salaries. What could possibly go wrong?

I don't mean to sound cynical. I just can't help myself. The entire ponderous program is based on a lie (that anthropogenic carbon dioxide is the primary cause of the global warming), founded on another lie (that man's use of fossil fuels is a significant source of atmospheric CO<sub>2</sub>), supported by *another* lie (that the earth is warming—when the data show that it has actually leveled off and begun to cool, and that the recent-historic peak global average temperatures were actually reached sometime back in the 1930s). And it's all being perpetrated to obfuscate *yet another* lie: that the welfare of mankind is the whole point. It is not. The point of this exercise is to grasp power, placing it in the hands of a small global elite class, who stand to make an immense amount of money by redistributing wealth from the "haves" to the "have nots," taking a healthy cut off the top, of course.

And how does all of this mesh with my "theory" that human civilization is headed for a rude and abrupt awakening around the fourth decade of the twenty-first century—even if the Bible's revealed timeline (which points toward the same chronological conclusion) is a load of holy hogwash? Perfectly, I'm afraid. If the cap-and-trade proponents got their way, fossil fuels—coal most certainly, but also oil and gas, and even biofuels (if carbon content is really the issue)—would be taxed into extinction. As petroleum put whaling virtually out of business in the late 19<sup>th</sup> century, fossil fuels would be replaced in the 21<sup>st</sup> by solar and wind energy—woefully inadequate, especially for transportation needs, but at least politically correct.

Do I expect that to happen? No, I don't. As I said before, the Bible's prophetic scenario suggests a world in which electronic communications (at the very least) are still possible, right up until the end of the Tribulation. That means that the worldwide electrical grid will still have to be up and running, after a fashion. But I do expect that the global elite will continue to find new ways to steal money and seize power using the issue of energy as their weapon. The pattern I see developing is rising energy prices, manipulated markets, and unequitable distribution: that is, the governments of the world, and the elite class that controls them, will have all the fuel and energy they need to keep their sheeple in line, while the ordinary taxpayers will suffer shortages, blackouts, and artificially inflated energy prices. Manipulating markets, of course, could involve the temporary lowering of energy prices (as established oil giants try to put fracking innovators out of business with supply-and-demand price wars, for example). But this is a cyclical process, one that, if extreme enough, invariably leads to general economic collapse. In the long run, the poor will continue to suffer, the rich will seize even more wealth, and the world will continue to march toward its own selfordained destruction.

This issue of "climate change" is like scores of other strategies that Satan uses in the world. They may take decades or centuries to gain a foothold, but they never really go away, even if proven wrongheaded and destructive. They merely go "underground," only to emerge a bit later in a slightly different guise. Look at the history of apostate religions, or the theory of evolution (i.e., faith in "nothing"), or socialist economic doctrine, or the abortion issue, or homosexuality, or the welfare state, or the obsolescence of marriage, or the substitution of God in the popular mind with science and technology. All of these things are wrong, if not evil and even suicidal. And none of them were accepted without resistance. But all of them have, in these Last Days, become mainstream, commonly received concepts—taught widely as truth, or worse, merely presumed to be good and right and indisputable.

If things remain on their present course, by the fourth decade of the twentyfirst century I expect the global energy picture to be pretty much as it is today, only on steroids. The "easy oil" of the OPEC nations will be almost gone, and Muslims with foresight will be casting a covetous (and increasingly desperate) eye on Israel's newly discovered oil and gas reserves. Israel, meanwhile, will have built their oil and gas operation into a finely tuned machine—the envy of the world. The coal industry in the U.S. will have been regulated to death, for all practical purposes. China and India will still be using coal with reckless abandon, but the dire air pollution situation there will have forced them to invent technologies enabling them to use this most plentiful resource more cleanly. An increasingly desperate U.S. government will have finally opened up some Federal lands to oil exploration, but it's a mixed blessing: the restrictions and regulations placed on fracking will have pushed the price of oil to a level so high that the ridiculously expensive Obama years will begin to look like the "good old days." The renewable energy industry will have grown, but it still won't come close to being able to pay for itself. The global energy grid will be held together with duct tape and super glue—but it *will* be holding together. Atmospheric CO<sub>2</sub> levels will continue to rise; average global temperatures will continue to fall. Scientists will continue to scratch their heads. Politicians will continue to lie.

On the other hand (as I'm sure you've noticed), I do *not* expect things to remain on their present course much longer. There are a hundred cultural, technological, and geophysical factors that are begging us to wake up and smell the Last Days. The energy issues we face are but one small part of the picture.

## Alternative and Emerging Energy Sources

We've all heard of the urban myths that say some guy working in his garage came up with an engine that could get 250 miles to the gallon, or would run on tap

water—only to "learn" that he got paid off by the oil industry to bury his research, or "met with an unfortunate accident" when he insisted on making his technology public. And knowing both the creativity and depravity of man, the latent conspiracy theorist in me is half ready to give the tales credence. (Or is it merely my inner ten-year-old telling me such things are not only possible, but would also be extremely cool?)

Such stories surface often enough to at least make us *wonder* about the future of energy in a utopian world. As bad as conditions on the earth have gotten, and as much *worse* we're told they're going to become (by both secular and Biblical sources) in the near future, I can't get past the fact that God's prophecies don't even *hint* at possible issues with energy—whether shortages, expense, or pollution—during the coming thousand-year reign of Christ. Yes, the initial population of the Millennial Kingdom will be (maybe) a tenth of what it is today, so the demographics will go a long way toward solving the problems all by themselves, at least at first. But the Millennium is also spoken of as a time of great fertility, fecundity, and prosperity: by halfway through it, the earth is going to be densely populated once again, unless I miss my guess.

Some have conjectured that the world under Christ's reign will revert to preindustrial-revolution technology, but a careful reading of scripture demonstrates this to be mere misplaced nostalgia. As I've said before, the technology is spiritually neutral—it merely magnifies and accelerates our ability to do evil or good. For example, we are given hints that worldwide travel will (as it is today) still be possible. You can't really do that on a horse.

In a clearly eschatological passage, the prophet Zechariah describes what will happen in the wake of the "battle" of Armageddon—in which *all* of the world's kingdoms will attack God's people in Jerusalem: "And it shall come to pass that everyone who is left of all the nations which came against Jerusalem shall go up from year to year to worship the King, Yahweh of hosts, and to keep the Feast of Tabernacles." (Zechariah 14:16) These aren't the individuals who fought in the battle, for they're all dead. Rather, it is those who *refused* to go and fight, who defied the Antichrist, refused to take his mark, and sided instead with Yahweh and His people Israel. Yes, they earned themselves a death penalty in the process, but some of them somehow managed to evade the headman's axe until the end. These are the fellowship of repentant Laodicea (see Revelation 3:14-22) who took Christ's advice to repent and open the door to Him—albeit belatedly. They are the gentile "sheep" who were blessed by the Messiah-King in Matthew 25.

For our present purposes, merely note that these people, spread out (presumably) all over the earth, will still *travel* to Jerusalem every year to celebrate the Feast of Tabernacles and pay homage to King Yahshua (identified here as Yahweh Himself) in person. Unless I'm missing something here, that requires some sort of robust international transportation system—most likely, aircraft. The bottom line: petroleum is still going to be in use throughout the Millennium, or at least until something better comes along.

And what about electricity? There's no reason to suppose that we'll revert to the dark ages during the Kingdom age. We should all be familiar with this description of the New Jerusalem (which I take to be a feature of the "new heaven and new earth" that will replace our present celestial infrastructure after the Millennial Kingdom): "And he [the angel] carried me away in the Spirit to a great and high mountain, and showed me the great city, the holy Jerusalem, descending out of heaven from God, having the glory of God. Her light was like a most precious stone, like a jasper stone, clear as crystal.... But I saw no temple in it, for the Lord God Almighty and the Lamb are its temple. The city had no need of the sun or of the moon to shine in it, for the glory of God illuminated it. The Lamb is its light.... There shall be no night there: They need no lamp nor light of the sun, for the Lord God gives them light. And they shall reign forever and ever." (Revelation 21:10-11, 22-23, 22:5) But by that point in time (or should I say, *beyond* time), every human believer will have received his or her immortal, incorruptible resurrection body—the point being that our capabilities will surely have transcended the need for electrical devices. And if Christ's resurrection body is any indication, our transport from one location to another will look something like sci-fi "teleportation," as in "not requiring fuel."

During the Millennium, however, both mortals and immortals will populate the planet—and the mortals can be presumed to need some technological assistance, just as we do today. Where will the "juice" come from? Coal? Nukes? Let us confer with the prophet Isaiah. **"The sun shall no longer be your light by day, nor** for brightness shall the moon give light to you; but Yahweh will be to you an everlasting light, and your God your glory. Your sun shall no longer go down, nor shall your moon withdraw itself; for Yahweh will be your everlasting light, and the days of your mourning shall be ended." (Isaiah 60:19-20) This is precisely as John described it in Revelation, but the timeframe is left unspecified: does this describe the Millennium, or the eternal state that follows?

Another couple of passages clear up that question. Speaking of the same enhanced light source—God Himself—Isaiah ties the timeframe to the Millennial age: **"Then the moon will be disgraced and the sun ashamed; for Yahweh of hosts will reign on Mount Zion and in Jerusalem and before His elders, gloriously."** (Isaiah 24:23) That's clearly a description of the earthly Kingdom of Christ.

Then we read, "The light of the moon will be as the light of the sun, and the light of the sun will be sevenfold, as the light of seven days, in the day that Yahweh binds up the bruise of His people and heals the stroke of their wound." (Isaiah 30:26) *When* will Yahweh "bind up the wound" of Israel? Hosea reveals the answer: "Come, and let us return to Yahweh; for He has torn, but He will heal us. He has stricken, but He will bind us

**up. After two days** [read: two thousand years after Israel's transgression—their rejection of the Messiah] **He will revive us. On the third day** [i.e., during the third one-thousand-year period—the Millennial Kingdom age] **He will raise us up, that we may live in His sight.**" (Hosea 6:1-2) That "third day," in case you haven't noticed, will *by God's own definition* begin in 2033. It's the single statistic that got me started on this whole chronological line of inquiry.

So it would seem—though I can't explain it from a technical standpoint—that "encouraged" by the reigning presence of its Creator, the *light* of sun (and its subsequent reflection by the moon) will be increased sevenfold during the Kingdom age, though its *heat* and *magnetic activity* will apparently remain constant and benign. (I realize that's an extrapolation, based on little more than my knowledge of God's love and power.) Forgive me for making an intuitive leap here, but does it not seem reasonable to assume that *solar power* will at last come of age during the Millennium? If today's solar collectors received seven times more light, even *they* (as inefficient as they are) would prove capable of powering the world.

But solar technology hasn't remotely "peaked." Let us take a look at what's on the near horizon...

#### Solar Breakthroughs

Until now, solar power has shown far more promise than payout. Everybody *likes* the idea, of course—free energy from the sun. But today's commercially available solar panels are inefficient and under-powered (though they're better than they used to be). Today the basic reality is, buying your electricity from somebody who makes it by burning coal, gas, or nuclear fuel is, 99 times out of 100, a better, cheaper solution than paying a fortune installing your own solar system. (The exception, I suppose, is if you live ten miles from anybody in the middle of the Mojave Desert, in which case solar power would be the perfect solution.)

Andy Tully, writing for *Oilprice.com* (republished by *Nasdaq.com*, June 11, 2014) offers good news on the solar front, theoretically, at least. In an article entitled "Solar Energy Breakthrough Could Drop Consumer Price," he explains: "You can put a solar panel on the roof of your house, but it won't be efficient unless you're willing to pay more. But a researcher at the University of California at Berkeley says that may be a thing of the past. Ali Javey, a Berkeley professor of electrical engineering and computer sciences, reports finding a far less expensive way to make more powerful semiconductors, which reduces the cost of high-efficiency solar cells, perhaps to the cost level of conventional solar cells.

"While solar energy has been attractive as a clean and renewable source of power, it's not economically competitive with fossil fuels. Javey says his research could become a 'game changer' in this equation. More efficient solar cells means fewer are needed. Fewer cells means lower cost per solar panel and for installation. And cutting the costs of the cells' constituent materials would lower those costs even more. The cells Javey is proposing would have an efficiency of about 25 percent, compared with the 18 percent efficiency in conventional lowefficiency solar cells...." I know, it doesn't sound like much, but that's about a 40% jump in efficiency.

"High-efficiency solar cells are currently made from semiconductors in expensive crystal form. These crystals are exposed to certain vapors that generate the thin film that coats solar cells. Javey has sidestepped the expensive crystals and instead creates the films using materials that are far less expensive: a sheet of metal or even glass. He reports that he's even managed to use a less expensive vapor to create the film, and uses less of this cheaper vapor by reducing waste."

"As promising as the new technology is, it's still in its very early stages, and Javey says he has far more work to do to produce solar cells at an industrial level. Jessica Adams, a senior engineer at Microlink Devices, which makes highefficiency solar cells, agrees that a commercial product won't be available for some time, but says Javey's research has 'demonstrated a way that we may be able to make solar cells out of indium phosphide relatively cheaply, with the potential to get very high efficiency.""

One obvious problem with solar power is that the sun doesn't shine at night. For it to become a *real* power player, there must be a way to store the energy generated when the sun was shining and retrieve it for use after sundown. *ExtremeTech.com*, in an article by Joel Hruska entitled "Breakthrough could help solve solar power's biggest problem: Power generation at night," (April 16, 2014) presents one possible (though again, still largely theoretical) solution.

"One of the most fundamental barriers to the widespread adoption of renewable energy has been the inconvenient truth of planetary rotation. Solar power has advanced enormously over the past few decades but panel efficiency and solar concentration plants are of limited assistance when Apollo [i.e., the 'sun god'—I *hope* Hruska was just being cute] is busy elsewhere on the Earth. Now, researchers think they've found a partial solution to that problem by combining the known properties of one substance with everyone's favorite technological advance: carbon nanotubes.

"One of the problems with electrical power generation is that we're much better at generating electricity than we are at storing it. This makes it difficult to rely solely on renewable sources for electricity; power generation can vary substantially in any given area depending on prevailing weather conditions at the time. One solution to the problem is to build out 2-3 times the capacity needed to provide average power consumption, but the capital costs associated with doing so are extremely high and there are only so many ideal spots to stick a giant solar concentration facility in any case. What's needed is a simple method of converting energy gathered during the day into a resource that can be tapped at night—and Timothy Kucharski, a post-doc at MIT and Harvard, thinks his team has found it." Well, sort of.

"Kucharski's work is based on the well-known properties of azobenzenes. These are molecules, dubbed photoswitches, that have one particular molecular configuration by default but, when struck by certain frequencies of ultraviolet light, assume a new configuration. When the molecule 'relaxes' from its excited state to its base state it releases about 50KJ/mol-1 of energy...." Basically, solar energy causes the azobenzene molecules to change shape, a process that increases their energy state. Later, a trigger restores the molecules to their original state, releasing the stored energy. "While they were unable to hit the necessary density of azobenzene molecules, adding carbon nanotubes drastically increased the overall efficiency...."

Don't get all excited yet, though. This isn't energy storage in the ordinary (electrical) sense. Rather, "The goal would be to create a short-term *thermal* battery that could be used to power a stove or other heat sources during the night after charging all day.... While it's not a full-scale solar battery, discoveries like this could make solar power far more useful in developing nations, which still rely primarily on wood or peat for cooking fuel."

Okay, so it's not quite the "breakthrough" in solar power you were hoping for. Still, you may be thankful for developments like this someday. After all, every move our Liberal-Progressive politicians make takes us one step closer to our new status as a third-world nation.

They were right about one thing, however: storing the "green" energy until it's needed is as thorny a problem as generating it in the first place. So this article on Harvard's website (by Paul Karoff, January 8, 2014) looks promising: "Battery offers renewable energy breakthrough—Harvard technology could economically store energy for use when the wind doesn't blow and the sun doesn't shine."

Karoff writes, "A team of Harvard scientists and engineers has demonstrated a new type of battery that could fundamentally transform the way electricity is stored on the grid, making power from renewable energy sources such as wind and sun far more economical and reliable...." This is "a metal-free flow battery that relies on the electrochemistry of naturally abundant, inexpensive, small organic (carbon-based) molecules called quinones, which are similar to molecules that store energy in plants and animals." Makes sense to me: if you need valuable insight, study the way Yahweh did things when He created life.

"The mismatch between the availability of intermittent wind or sunshine and the variable demand is the biggest obstacle to using renewable sources for a large fraction of our electricity. A cost-effective means of storing large amounts of electrical energy could solve this problem.... Flow batteries store energy in chemical fluids contained in external tanks, as with fuel cells, instead of within the battery container itself. The two main components—the electrochemical conversion hardware through which the fluids are flowed (which sets the peak power capacity) and the chemical storage tanks (which set the energy capacity) may be independently sized. Thus the amount of energy that can be stored is limited only by the size of the tanks. The design permits larger amounts of energy to be stored at lower cost than with traditional batteries.

"By contrast, in solid-electrode batteries, such as those commonly found in cars and mobile devices, the power conversion hardware and energy capacity are packaged together in one unit and cannot be decoupled. Consequently they maintain peak discharge power for less than an hour before they are drained, and are therefore ill-suited to store intermittent renewables.... One to two days' worth of storage is required for making solar and wind dispatchable through the electrical grid....

"To store 50 hours of energy from a 1-megawatt power capacity wind turbine (50 megawatt-hours), for example, a possible solution would be to buy traditional batteries with 50 megawatt-hours of energy storage, but they would come with 50 megawatts of power capacity. Paying for 50 megawatts of power capacity when only 1 megawatt is necessary makes little economic sense. For this reason, a growing number of engineers have focused their attention on flow-battery technology. But until now, flow batteries have relied on chemicals that are expensive or hard to maintain, driving up the cost of storing energy.

"The active components of electrolytes in most flow batteries have been metals. Vanadium is used in the most commercially advanced flow-battery technology now in development, but it sets a rather high floor on the cost per kilowatt-hour at any scale. Other flow batteries contain precious metal electrocatalysts, such as the platinum used in fuel cells. The new flow battery developed by the Harvard team already performs as well as vanadium flow batteries, with chemicals that are significantly less expensive, and with no precious-metal electrocatalyst.

"The whole world of electricity storage has been using metal ions in various charge states, but there is a limited number that you can put into solution and use to store energy, and none of them can economically store massive amounts of renewable energy. With organic molecules, we introduce a vast new set of possibilities. Some of them will be terrible and some will be really good. With these quinones we have the first ones that look really good." It should be noted that quinones are organic aromatic *hydrocarbons* (based on such compounds as benzene or naphthalene). "Quinones are abundant in crude oil as well as in green plants. The molecule the Harvard team used in its first quinone-based flow battery is almost identical to one found in rhubarb. The quinones are dissolved in water, which prevents them from catching fire." So the future of solar electrical power storage may lie in *oil*. Ironic, isn't it? Perhaps the liberal-progressives' "war on carbon" was a bit shortsighted.

Theoretically, the technology is scalable, from grid-wide applications with a few very large storage tanks, to small home installations. "Imagine a device the size of a home heating-oil tank sitting in your basement. It would store a day's worth of sunshine from the solar panels on the roof of your house, potentially providing enough to power your household from late afternoon, through the night, into the next morning, without burning any fossil fuels." The systems are still in the testing phase, but commercial applications are already being planned. The potential benefits are enormous, for the technology would allow solar energy to overcome its most formidable obstacle—the fact that electricity isn't being generated between sundown and sunrise. "The intermittent renewables storage problem is the biggest barrier to getting most of our power from the sun and the wind,' [project leader Michael J.] Aziz said. 'A safe and economical flow battery could play a huge role in our transition off fossil fuels to renewable electricity.""

Not all of the advancements in solar power generation are being made in America, of course. Campbell Simpson, writing for *Gizmodo.com.au* (June 4, 2014), reports on progress being made by Australia's national science agency CSIRO (Commonwealth Scientific and Industrial Research Organisation—one of the largest and most diverse research agencies in the world). "Supercritical solar steam energy uses the power of the Sun, collected on hundreds of solar panels and used to heat water under extremely high pressure to massive temperatures. That steam then drives a turbine to produce electricity. CSIRO's development is the combination of achieving the highest-yet recorded pressure of 23.5 megapascals and temperature of 570 degrees Celsius, demonstrated in a real-world setting rather than a lab.

"This temperature is the highest supercritical steam record outside of a fossil fuel power plant, and CSIRO hopes that with more development, the solarpowered technology will be able to supplement or replace fossil fuel power plants in coming decades,' according to CSIRO energy director Dr Alex Wonhas: 'It's like breaking the sound barrier. This step change proves solar has the potential to compete with the peak performance capabilities of fossil fuel sources. Instead of relying on burning fossil fuels to produce supercritical steam, this breakthrough demonstrates that the power plants of the future could instead be using the free, zero-emission energy of the sun to achieve the same result."" But for sheer entrepreneurial chutzpah, you can't really beat the Americans. One idea that's gaining traction is the "solar roadway." *Indiegogo.com* reports: "Solar Roadways is a modular paving system of solar panels that can withstand the heaviest of trucks (250,000 pounds). These Solar Road Panels can be installed on roads, parking lots, driveways, sidewalks, bike paths, playgrounds... literally any surface under the sun. They pay for themselves primarily through the generation of electricity, which can power homes and businesses connected via driveways and parking lots. A nationwide system could produce more clean renewable energy than a country uses as a whole. They have many other features as well, including: heating elements to stay snow/ice free, LEDs to make road lines and signage, and attached Cable Corridor to store and treat stormwater and provide a 'home' for power and data cables. EVs [electro-voltaic cells] will be able to charge with energy from the sun (instead of fossil fuels) from parking lots and driveways and after a roadway system is in place, mutual induction technology will allow for charging while driving."

Never let it be said that Americans no longer know how to think *big*. The numbers are either amazing or outlandish, depending on your point of view. *SolarRoadways.com* reports, "The first thing that one has to understand before beginning to look at numbers is this: an apples to apples comparison between asphalt or concrete roads and Solar Roadways is not possible. An asphalt/concrete road is simply a hard surface to drive a vehicle on. A Solar Roadway is a modern modular system with a multitude of uses and features. For an accurate cost comparison between current systems and the Solar Roadways system, you'd have to combine the costs of current roads (including snow removal, line repainting, pothole repair, etc.), power plants (and the coal or nuclear material to run them), and power and data delivery systems (power poles and relay stations) to be comparable with the Solar Roadway system, which provides all three. So the comparison is more like an apple to a fruit basket....

The primary question is: "Can we really generate enough pollution-free electricity to power our businesses and homes? The calculations below are presented to answer this very important question.

"First, the 'givens': In the 48 contiguous states alone, pavements and other impervious surfaces cover.... 31,250.86 square miles of roads, parking lots, driveways, playgrounds, bike paths, sidewalks, etc., to work with. If these impervious surfaces were replaced with Solar Road Panels, how much electricity could we produce?...

"Sunpower offers a 230 Watt solar panel rated at 18.5% efficiency. Its surface area is 13.4 square feet. If we covered the entire 31,250.86 square miles of impervious surfaces with solar collection panels, we'd get:  $((31,250.86 \text{ mi}^2) \times (5280 \text{ ft} / \text{mi})^2) / (13.4 \text{ft}^2/230 \text{W}) = ((31,250.86 \text{ mi}^2) \times (27,878,400 \text{ ft}^2 / \text{mi}^2)) /$ 

 $(13.4ft^2/230W) = (871,223,975,424 ft^2) / (13.4ft^2/230W) = 14,953,844,354,292$ Watts, or over 14.95 billion kilowatts. If we average only 4 hours of peak daylight hours (1460 hours per year), this gives us: 14.95 billion kilowatts x 1460 hours = 21,827 billion kilowatt-hours of electricity.... For fairness, let's subtract 31 percent from our totals since we can't [optimally] angle roads and parking lots: 21,827 Billion Kilowatt-hours x 0.69 = 15,060 billion kilowatt-hours.

"We did our testing in January and February in northern Idaho. Here we have worst case scenario: our measurements were taken in the dead of winter (sun is at its lowest point of the year) an hour south of the Canadian border at latitude 48.19 degrees.... Conclusion: we would be hard pressed to find a worse time and place to conduct this experiment!" Any way you slice it, the bottom line is fairly amazing: if solar roadways were installed everywhere they could be in America, they would be expected to generate 15,060 billion kilowatt-hours of electricity! "According to the Energy Information Administration, the United States (all 50) used 3,741 billion kilowatt-hours of electricity in 2009 (EIA Electricity Overview, 1949-2009). It's easy to see that the Solar Roadways could produce over *three times* the electricity that we currently use in the United States." In fact, "The 'lower 48' could produce just about enough electricity to supply the *entire world*. And once again, remember: these calculations are made with very conservative numbers using north Idaho as a reference point, which is one of the worst case scenarios in the U.S. where latitude is concerned (Okay, we have to concede to Alaska!)." Something tells me Texas, New Mexico, and Arizona would deliver even better results.

They appear to have considered every foreseeable factor, both positive and negative. Other points they raise: "A Solar Roadway has the ability to cut greenhouse gases by up to 75-percent!... Some components like the solar cells, capacitors, and LEDs will wear out and have to be replaced, but much of the panel is reusable. If we began manufacturing today with 18.5% efficient solar cells, and the panels lasted 20 years before the need for refurbishing, the latest (20 years from now) efficiency solar cells would be installed and the same Solar Road Panel would produce even more power than before. This will allow the Solar Roadway to keep up with the increase in electricity demand over the years.

"In addition, the Solar Roadway replaces our current aging power grid. The Solar Roadways carry power not from a centralized point like a power station, but from the power-producing grid itself along with data signals (cable TV, telephone, high-speed internet, etc.) to every home and business connected to the grid via their driveways and parking lots. In essence, the Solar Roadways becomes a conduit for all power and data signals...." If implemented, the design would decentralize the energy and communications grid—much like the Internet—making it relatively impervious to catastrophic system-wide events. Of course, at this early stage, nobody has a clue as to how much the hexagonal Solar Roadway modular panels would cost to manufacture, install, and maintain. But the Solar Roadways Company makes a valid point: no matter how much the initial cost, "Unlike current road systems, a Solar Roadway will pay for itself over time. No more contributing to the climate crisis. No more power outages (roaming or otherwise). Safer driving conditions. Far less pollution. A new secure highway infrastructure that pays for itself. A decentralized, self-healing, secure power grid. No more dependency on foreign oil. The real question may be: What will be the cost if we *don't* implement the Solar Roadways?"

In fairness, I must note that there are entire websites devoted to telling us why solar roadways "are a terrible idea" (in the words of one of them). In all honestly, they all seemed to boil down to one thing: "There are (*gasp!*) *problems* to overcome. Horrors!" With this sort of whiney attitude, we never would have sent astronauts to the moon or built the Hoover Dam. But at the same time, I can't see how implementing the concept on any kind of broad scale would be possible in a world facing the kinds of Last Days challenges we've been studying for the past few hundred pages. It's not the technology—it's the humanity. Man is simply too self-destructive to allow himself to be blessed like this. Call me a pessimist, but between wars, envy, greed, and generally poor attitudes on the part of nine tenths of the world's population, mankind would dismantle the system as soon as it was built, for we are a fallen, silly race.

But could this be accomplished during Christ's Millennial Kingdom? It seems to me to be a perfect fit for the times of peace and plenty that lie ahead for those who trust in Yahweh's grace. It's not that fossil fuels are intrinsically evil (as we've been taught for the past quarter century). They were a gift from God that proved sufficient to get us through the present age—and perhaps a century or two into the next. No, it's that (as far as we know) there aren't natural fuel reserves sufficient to last us for the next thousand years. But remember: God has already revealed where our energy will come from during the Kingdom age—from the sun. "The light of the moon will be as the light of the sun, and the light of the sun will be sevenfold, as the light of seven days, in the day that Yahweh binds up the bruise of His people and heals the stroke of their wound." (Isaiah 30:26) That "day" will commence (unless I'm confused about a great many things) On October 8, 2033. Call me naïve, but I think solar roadways (with other recent developments like quinone-based flow batteries) would be a perfect way to utilize and distribute Yahweh's solar bounty to the mortals of the Millennial age.

## Nuclear Fusion.

Most of us are familiar with the concept of nuclear power—whether through our own use of it or through news of rare but catastrophic accidents. About ten percent of the world's electricity is generated in nuclear reactors, including the juice that's bringing you this book—produced at the Lake Anna nuclear facility in Virginia. Today there are 437 operational nuclear power reactors in 31 countries, although not every reactor is presently producing electricity. There are also approximately 140 naval vessels in operation using nuclear propulsion.

All things considered, nuclear energy is quite safe—in France, for example, some 80% of the electricity is generated in nuclear power plants, and they've never had a serious mishap. But when things go wrong, they can go *terribly* wrong—as witnessed by the devastation caused by Ukraine's human-error-caused Chernobyl disaster in 1986, or Japan's Fukushima Daiiachi meltdown (2011), caused by a 9.0 magnitude earthquake and subsequent tsunami.

All of these reactors run on a technology called "nuclear fission," an outgrowth of the atomic bomb research done during World War II. Basically, heat energy is produced by "splitting the atom." The "fuel" is rare—usually either uranium or plutonium—and the byproducts of the spent fuel are dangerously radioactive, making disposal or storage problematic. Still, the amount of energy produced is millions of times more potent than with fossil fuels, pound for pound. So nuclear fission is definitely a technology worth having and developing further.

But there is another type of nuclear reaction in which atoms aren't split, they're fused. Hydrogen atoms, for example, are forced to join together, producing helium. This is the type of nuclear reaction that powers our sun. It's called nuclear *fusion*, and it has been the dream of physicists almost since the dawn of the nuclear age to harness this technique to power our world—a dream that has so far proved elusive. The problem, simply put, has always been that it has taken as much energy to get the atoms to fuse as is produced in the subsequent reaction. If that problem could be solved, a whole new world of cheap, safe, pollution-free energy could be within our reach.

Recently, a breakthrough of sorts has been made. Steve Connor, reporting for *The Independent/UK* (February 13, 2014) wrote an article entitled "The lasers fuelling hopes of unlimited, clean nuclear energy—A major engineering milestone in the quest for nuclear fusion holds the promise of a future without energy fears." We're not there yet, you understand, but this indeed sounds encouraging:

Connor writes, "A milestone has been reached in the 60-year struggle to harness the nuclear reactions that power the Sun in an experiment that could lead to a way of producing an unlimited source of clean and sustainable energy in the form of nuclear fusion. Scientists in California said on Wednesday night that they have for the first time managed to release more energy from their nuclear fusion experiment than they put into it, which marks a critical threshold in eventually achieving the goal of a self-sustaining nuclear-fusion reaction. The potential benefits of fusion power are clearly worth the effort: "Nuclear fusion uses a fuel source derived from water and produces none of the more dangerous and long-lasting isotopes, such as enriched uranium and plutonium, that result from conventional nuclear power plants, which rely on the fission or splitting of atoms rather than their fusion."

So what happened? "Researchers involved in the Nuclear Ignition Facility (NIF) at the Lawrence Livermore National Laboratory said that they have used 192 laser beams to compress a tiny fuel pellet less than half the diameter of a human hair in such a way that it triggered the net release of energy by nuclear fusion. The fuel, composed of the two hydrogen isotopes tritium and deuterium derived from water, was compressed together under enormous pressures and temperatures for less than a billionth of a second, but this was enough to see more energy coming out of the experiment than went into it. 'We are fusing deuterium and tritium, which are isotopes of water, in a way that gets them to run together at high enough speed to overcome their natural electrical repulsion to each other,' said Omar Hurricane of the Livermore laboratory. 'We are finally, by harnessing these reactions, getting more energy out of these reactions than we are putting into the deuterium-tritium fuel....'"

"There are currently two parallel approaches to nuclear fusion. One uses laser energy to compress fuel pellets—like the NIF experiment—and aims to keep the fuel in place by a process known as inertial confinement. The other approach is to build a complex magnetic 'bottle' to hold the hot, electrically charged plasma of the fuel in place. This magnetic confinement is the strategy of the Joint European Torus.... Both approaches aim to gain more energy than is put into the system, and ultimately to a critical stage called "ignition" when the reaction becomes selfsustaining, which would mean that fusion could be exploited practically in power plants as an unlimited source of clean energy."

Reporting on the same breakthrough at Lawrence Livermore, *Scientific American's* David Biello (February 12, 2014) cautions: "Scientists remain a long way from what's known as ignition: the point at which fusion of any kind releases more energy than was consumed to start it. And the method used to produce this result is unlikely to create the conditions needed to reach that goal. 'By lowering the compressibility, they have lowered the pressure that can be reached,' explains physicist Mark Herrmann, director of the Pulsed Power Sciences Center at Sandia National Laboratories....

"But the discovery team has also seen for the first time the early stages of the kind of physical processes needed to create such fusion. Specifically, the fuel showed evidence of what fusion physicists like to call 'bootstrapping.' Essentially, the helium nuclei (otherwise known as alpha particles) thrown off by the fusing hydrogen isotopes left their energy behind, maintaining the conditions needed for yet more fusion. That helped more than double the superheating of the fusing fuel and suggests the team is halfway to the kinds of energies needed to achieve ignition....

"Dr. Hurricane compares the ongoing ignition quest with climbing a mountain of unknown height with a summit wreathed in clouds and therefore invisible. This step of getting more energy out of the fuel than is put in represents a base camp of sorts, farther up the mountain than any have ever tread before and from which new paths to reach the summit of ignition might be tried....

"Regardless of whether NIF achieves ignition or not, the facility will continue to create the kind of high-density fusion conditions that have also proved useful to those charged with ensuring that the U.S. nuclear arsenal remain in working order. Instead of occasionally setting off nuclear bombs, this weapons crew now relies on such tests that create conditions similar to those at the core of a thermonuclear weapon. The NIF shots also simulate conditions that are found at the center of gas-giant planets like Jupiter or brown dwarf stars. 'It allows us to study nuclear synthesis processes that we've never had access to before,' says Livermore experimental plasma physicist Tammy Ma, another member of the fusion team.

"But even if scientists do achieve ignition one day...there will still be a long road to building an actual fusion power plant. For one thing, a fresh source of rare tritium would be required to sustain fusion. Current ideas focus on a so-called blanket of lithium that would be bombarded by the spare neutrons from fusion itself, producing yet more helium and tritium while still leaving some energy leftover to be harvested for electricity production.... After all,  $E = mc^2$ , which means a very small amount of mass can produce a great amount of energy, given the speed of light. The prospect of near limitless, sustainable energy with just a whiff of helium as a by-product ensures continued interest."

But the real "holy grail" (or perhaps I should say "Loch Ness Monster") of energy production is *cold fusion. Wikipedia* explains: "Cold fusion is a hypothetical type of nuclear reaction that would occur at, or near, room temperature, compared with temperatures in the millions of degrees that are required for 'hot' fusion. It was proposed to explain reports of anomalously high energy generation under certain specific laboratory conditions. The original experimental results which were touted as evidence for cold fusion were not replicated consistently and reliably, and there is no accepted theoretical model of cold fusion.

"Cold fusion gained attention after reports in 1989 by Stanley Pons and Martin Fleischmann, then one of the world's leading electrochemists, that their apparatus had produced anomalous heat ('excess heat'), of a magnitude they asserted would defy explanation except in terms of nuclear processes. They further reported measuring small amounts of nuclear reaction byproducts, including neutrons and tritium. The small tabletop experiment involved electrolysis of heavy water on the surface of a palladium (Pd) electrode.

"The reported results received wide media attention, and raised hopes of a cheap and abundant source of energy. Many scientists tried to replicate the experiment with the few details available. Hopes fell with the large number of negative replications, the withdrawal of many positive replications, the discovery of flaws and sources of experimental error in the original experiment, and finally the discovery that Fleischmann and Pons had not actually detected nuclear reaction byproducts. By late 1989, most scientists considered cold fusion claims dead."

The way scientific experimentation is supposed to work is: your experiments must be so carefully controlled, measured, and documented, other scientists can (if your premise is valid) repeat your work and consistently obtain the same results. The work of Fleischmann and Pons didn't live up to these criteria, so cold fusion became something of a unicorn in the scientific community: everyone agreed that it would be a wonderful discovery, but few believed it could actually exist in the real world.

Cold fusion is such a promising premise, it is not surprising that some folks never lost hope in it, figuring that this idea was so good, it just *had* to have some life left in it. (As Miracle Max said in the movie *The Princess Bride*, "There's a big difference between mostly dead and *all* dead. Mostly dead is slightly *alive*. With *all* dead, well, there's usually only one thing you can do... go through his clothes and look for loose change.")

The *World Future Society*, through their website *wfs.org* (April 1, 2014), brings us up to date on the progress of cold fusion's unlikely resurrection. Richard Sampson writes: "Within a few short years we could see an energy explosion that changes everything. It promises to come years to decades sooner than conventional (hot) nuclear fusion [something we have just seen is showing great promise of late]. And it could be a lot cheaper, more scalable, and more transformative....

"Since 2009, research has blazed ever hotter on exotic new energy technologies, most of which avoid the once-defamed term "cold fusion," best known for describing it. The technologies go by names such as Low Energy Nuclear Reaction (LENR), Lattice Assisted Nuclear Reaction (LANR), Chemical Assisted Nuclear Reaction (CANR), and Energy Catalyzer (E-Cat). "LENR" is now the most common name for this new area of super-clean, super-cheap potential energy solutions." Not only have such venerable government institutions as NASA and the U.S. Department of Energy been quietly supporting recent research into these successor technologies to cold fusion, but commercial interests are on the cusp of real world implementation in such varied fields as electricity generation, industrial or commercial heating, automotive applications, spacecraft, food preparation, and manufacturing.

"Some of the developers are years away from marketable solutions. Others are licensing their technology to manufacturers and distributors now, although the reality of practical field installations is not yet clear. A few are preparing opensource specifications to let local entrepreneurs experiment with devices on their own. Here's a sampling:

"Mitsubishi has been granted a patent for transmuting nuclear waste into energy using LENR technology.

"Brillouin Energy Corporation is developing what they call Controlled Electron Capture Reaction (CECR) technology with broad applications. Others might call it LENR, LANR, or cold fusion. A South Korean industrial company recently signed a license with Brillouin, hoping to develop manufacturing and distribution plans for CECR by 2015. One key application is to provide a safe, clean and economically compelling solution to retrofit and repower smaller 'stranded asset' conventional fossil fuel or biomass power plants with Brillouin's CECR technology. 'Stranded asset' plants are those idled for any number of environmental, economic or operational reasons." Or political, I might add.

"Industrial Heat LLC has acquired the rights to the Energy Catalyzer (E-Cat), a form of LENR developed by Andrea Rossi of Italy. Industrial Heat was recently funded by individual investors and senior personnel of Cherokee, a significant private investment company based in Raleigh, North Carolina.... Industrial Heat is expected to pursue the goal of making E-Cat technology widely available as a low-cost, green alternative to fossil fuels. China is reportedly looking into it as a solution to its mounting pollution problem and to gain leverage in the alternative energy sector.

"LENR Cars has filed a patent application for a "Low Energy Nuclear Thermoelectric System" to power land, sea, and air vehicles for long distances with zero emissions at very low cost.

"SpaceWorks Engineering, in partnership with NASA, is working on a LENR heat source to power space launch systems including reusable launch vehicles with water as the only propellant.

"Pure Energy Systems, an exotic-energy information aggregator and technology champion, is crowd-sourcing a heating device that can be assembled from standard components by anyone anywhere. The hope is that it can be proved successful and scaled to a wide range of applications from home heat and electricity to anything larger."

Despite the article's publication date, this does not appear to be an April Fool's Joke, but rather a veritable explosion of innovative thought. "An energy advance that could save the planet and power unprecedented prosperity is virtually invisible to the public, in spite of heated activity around the world. Why do most reporters seem to be ignoring it? Possibly because they got burned for hyping cold fusion when it was first announced, back in 1989, before it was fully vetted and mainstream scientists saw fit to consider it...." And possibly (says the skeptic in me) because established energy producers have a vested interest in keeping a lid on new technologies as long as they can.

"Why is the shift to clean, safe, very low-cost energy so important? Dirty energy is like bad integrity; over time it doesn't work. If we don't find a way to power human activity without polluting the planet, we risk degrading the quality of life far beyond what we have known in the past, while ruining our children's future. If, however, we transition to super-clean, super-cheap energy soon enough—with no one and nothing compromised or left out—then we may have a shot at survival and sustainable prosperity." Thank you, Captain Obvious. But may I point out that the societal conditions of which you speak cannot and will not become a worldwide reality until Christ rules with a rod of iron. Until then, utopia, or even mere "survival and sustainable prosperity," are as unlikely as Sasquatch running for president. There is more to achieving a perfect society than clean, cheap energy, as nice as that would be.

But don't let me rain on your parade. This is good stuff. "The icing on the cake may be the new energy's decentralized nature, which helps make individuals, families, and communities more independent. This speaks to our most passionate needs for freedom and fulfillment, allowing entrepreneurship and cultural contributions to flourish as never before...." Boy, is Mr. Sampson out of touch with the agenda of the New World Order, or what? Decentralization of resources, independence, freedom, fulfillment, and entrepreneurship are the *last* things the global elites would want.

The bottom line? "Energy has always been the core driver of civilization [a shaky premise at best], but most of today's energy is dirty, expensive, and fraught with problems including climate change, threatening civilization itself. With the benign, abundant new energy, there's an added return on investment, planetary survival, which is vital for any other bets to pay off. LENR's proponents argue that their new technology is the cheapest, fastest and surest way to have a chance to reverse the catastrophic potential of climate change. Certainly for us to survive and thrive, we need energy that's safe, clean, and dirt-cheap. And we need it very,

very soon. Astute futurists and those with means, great or small, could tip the balance."

Don't look now, sir, but CO<sub>2</sub>-caused climate change is a politically driven myth. "Planetary survival" is not at stake, nor does cold fusion have the potential to be the savior of mankind, as beneficial as it could be. I'm not *against* it, mind you; quite the contrary. I'm merely looking at the bigger picture—the spiritual picture.

"As has been true throughout history, the near-term opportunity may be for those with the means and moxie to see what's happening before the general public does, and act on it." Mr. Sampson, of course, is talking about investing money in the future of cold fusion technologies before the world catches on to its immense potential. I would instead suggest "investing" one's life in the One Thing that will matter beyond the fourth decade of the twenty first century: the kingdom of Yahweh's Messiah. Everything else will take care of itself.

By the way, there's one new wrinkle on an *old* energy technology—nuclear *fission*—that bears mention, and this would seem an appropriate place to do it. From its inception, nuclear power has been generated primarily from two types of fuel in the fission process—uranium-235, purified (or "enriched") by reducing the amount of uranium-238 in natural mined uranium; and plutonium-239, transmuted from uranium-238 obtained from natural mined uranium. The byproducts of further enrichment of both these isotopes are used to make nuclear weapons—which was the whole point, of course, of the original research, done as World War II was raging. But there is a third fuel source—far more plentiful than uranium, but not very useful in making weapons: thorium—a plentiful natural mined element from which can be made thorium-232, which in turn yields the uranium-233 used in nuclear power generation.

*Wikipedia* notes, "Some believe thorium is key to developing a new generation of cleaner, safer nuclear power. According to an opinion piece (not peer-reviewed) by a group of scientists at the Georgia Institute of Technology, considering its overall potential, thorium-based power 'can mean a 1000+ year solution or a quality low-carbon bridge to truly sustainable energy sources solving a huge portion of mankind's negative environmental impact." The history of the technology strongly suggests that thorium power generation has been purposely sidelined for one simple reason: its unsuitability as a source of nuclear weapons.

But the doomsday factor aside, the potential benefits of thorium power sound promising. *Wikipedia* again: "The thorium fuel cycle offers enormous energy security benefits in the long-term, due to its potential for being a self-sustaining fuel without the need for fast neutron reactors. It is therefore an important and potentially viable technology that seems able to contribute to building credible, long-term nuclear energy scenarios....

"Possible advantages of thorium include utilization of an abundant fuel, inaccessibility of that fuel to terrorists or for diversion to weapons use, together with good economics and safety features.... Science writer Richard Martin says, 'Thorium is considered the most abundant, most readily available, cleanest, and safest energy source on Earth.' Thorium is four times as abundant as uranium, which is as common as lead. It is ~ 570 times as common as uranium-235, the fissile isotope of uranium used for nuclear energy. The Thorium Energy Alliance (TEA) estimates 'there is enough thorium in the United States alone to power the country at its current energy level for over 1,000 years....""

Thorium's very low plutonium production rate makes it a poor source of bomb materials. Consequently, "there is much less nuclear waste—up to two orders of magnitude less...eliminating the need for large-scale or long-term storage.... Chinese scientists claim that hazardous waste will be a thousand times less than with uranium. The radioactivity of the resulting waste also drops down to safe levels after just a few hundred years, compared to tens of thousands of years needed for current nuclear waste to cool off."

Perhaps utilization of thorium nuclear power will turn out to be one unforeseen permutation of the Millennial promise of peace: **"For out of Zion shall go** forth the law, and the word of Yahweh from Jerusalem. He shall judge between the nations, and rebuke many people. They shall beat their swords into plowshares, and their spears into pruning hooks. Nation shall not lift up sword against nation; neither shall they learn war anymore." (Isaiah 2:3-4)

#### Energy from Sea Water

What's the most abundant resource on earth? It would have to be sea water. Oceans cover 71% of our planet's surface, and their average depth is 3,795 meters (12,451 feet). To give you some idea of how much water that is, the average elevation of our land is only 840 meters (2,756 feet). That is, there is *eleven times* as much water in the oceans as there is land poking out above sea level.

So wouldn't it be cool if we could create fuel out of seawater? Well what a coincidence: the title of a recent (April 11, 2014) article posted on the Department of Defense website is "Energy Independence: Creating Fuel from Seawater," by Jessica L. Tozer. She writes, "The Naval Research Laboratory has announced that they have been able to successfully convert seawater into usable, legitimate fuel.... In a proof of concept test, using the molecularly restructured seawater, they successfully flew a radio-controlled aircraft with an unmodified internal combustion engine.

"This is pretty forward-thinking out there. This is present shock, not future shock,' said Vice Adm. Phil Cullom, Naval Operations for Fleet Readiness and Logistics deputy chief. He spoke with me during the Sea, Air and Space Expo last week to tell me a little about why this is so significant for the fleet, and how a technology ten years ahead of its time has been eight years in the making: 'What is just absolutely revolutionary about [this technology] is that, if you no longer have to worry about where that oiler is, you remove so much of the vulnerability that we have at sea.'

"Especially when, operationally, fuel distribution is our Achilles heel. As a global force, Adm. Cullom says we deliver 1.25 billion gallons of fuel worldwide to operators annually, where the fuel trucks and resupply lines are soft targets...." It's a little alarming to me that our military expends that much fuel every year and we have so little to show for it, either in terms of peace, security, or good will. But since that ship has already sailed (so to speak), removing these "soft targets" from the equation is a worthy goal, I suppose. "We need to reinvent how we create energy, how we value energy and how we consume energy."

"The brain power behind this revolutionary science comes from research chemist Dr. Heather Willauer and her team at the Naval Research Lab. The science behind the incredible conversion is all about utilizing resource. Molecularly. 'We've developed a technology at the Naval Research Laboratory that does indeed process seawater,' she says. 'It pulls the components, carbon dioxide and hydrogen, from the seawater. Then we take those components and we recombine them over a NRL-developed catalyst to make, essentially, designer fuel.' Fueled by a liquid hydrocarbon—a component of NRL's novel gas-to-liquid process that uses CO<sub>2</sub> and H<sub>2</sub> as feedstock—the research team demonstrated sustained flight of a radio-controlled P-51 replica...powered by an off-the-shelf and unmodified two-stroke internal combustion engine.

Long story short, the technology uses metal catalyst (e.g. iron, cobalt, nickel or copper) to "process" seawater, making designer fuels like methanol, olefins that can be converted to jet fuel, natural gas, or a variety of other fuels based on long-chain hydrocarbons. CO<sub>2</sub> is extracted from the seawater (whose concentration is 140 times as great as in the air that our politicians are so worried about). Hydrogen (a component of seawater) is produced simultaneously. Admiral Cullom says, "It looks, smells and acts just like petroleum fuel. It has all the right components." Granted, it takes about 23,000 gallons of seawater to make one gallon of fuel, but the whole process is carbon-neutral—hence politically correct. As we've heard before, this technology is just now on the cusp of becoming a practical reality—but it's one more thing that promises to make the fourth decade of the twenty-first century *really* interesting.

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Just as the world seems in so many different ways to be starting to fall apart around our ears, we are beginning to hear whispers of long-term environmentally sound energy strategies that promise the ability to inexpensively power our world for millennia to come. I've rambled on for pages describing promising new developments that lie just over the horizon, but I haven't even scratched the surface. If you'd like to explore the concept of cheap (or even free) energy further, take a look at this website: *Collective-Evolution.com*/?*s*=*free*+*energy*.

Along with lots of lunatic-fringe new-age weirdness, it catalogs dozens of articles describing ideas people have come up with, all of which claim to spell the end of our energy woes. The Quantum Energy Generator; The Casimir Effect; The Searl Effect Generator; Tesla's Zero Point Energy; Hydrogen from plants; Compressed air powered cars; A Thorium-powered car; Cold fusion; The Rodin Coil; The IBM Solar Magnifier—and more, including my personal favorite: the "Urine-Powered Generator: 6 Hours of Power on 1 liter of Pee."

I'm not guaranteeing that all (or even some) of these ideas are sound, proven, or practical. I'm merely stating that man—made in the image of Yahweh—is creative by nature: he *will* find solutions to problems that confront him, given the chance. But in addition to being a creative race, we are also fallen, sinful, and in rebellion against our God (for the most part). This in turn means that our godly propensities—like creative problem solving—are as likely as not to fall prey to greed, envy, hatred, and sloth (whether our own, or somebody else's).

For the past half a dozen chapters, I have been droning on about the myriad of ways the world is telling us that we are in for a paradigm shift of "Biblical proportions" by the fourth decade of the twenty-first century—and not only because of what the Bible had to say. But our exploration of energy issues (unlike so many other factors) has left us with a bit of light at the end of the tunnel of despair. Could it be that I was premature in my pronouncement of woe upon the earth? No. The evidence speaks for itself. You don't have to be a prophet to see what's coming—which is a good thing, because I'm no prophet, and chances are, you aren't either. All you have to do is pay attention to the data.

So why do the data offer us a glimmer of hope in this case? I believe it has something to do with the nature of the Millennial Reign of Christ. Somehow, I can't picture God ordaining that we all go back to a pre-industrial economy though doing so would certainly be His prerogative. No, when "the government is on His shoulders" (as it's described in Isaiah 9:6), I envision a world that is at last able to fully enjoy the fruits of the creativity of mankind—things that are routinely wasted on wars and squandered on prideful ambition today. And that is going to require energy—electricity for communications and fuel for transportation, at the very least. This would presumably not be necessary if we were all going to be enjoying the immortal state (see I Corinthians 15:50-54), as some of us will. But the Millennial Kingdom will be populated as well with mortal human beings—the gentile "sheep" of Matthew 25:34, their Israelite counterparts, and all of their mortal descendants—billions of them, before the Millennium has run its course.

Building the infrastructure of the Kingdom age will be the job of these Millennial mortals. Under Christ's guidance (communicated by the immortals, I'm guessing) they will rebuild Yahweh's perfect world upon the ashes of our generation's failures. And unless I'm totally misled, that will include developing energy sources to bless mankind—based on gifts that Yahweh showered upon the earth long before human history began.

# Appendix 10 Secular Chronology Confirmation

How current trends corroborate the Bible's revealed timeline

# MAD SCIENTISTS

If you want to write a "sure-fire" novel or screenplay, one tried-and-true plot device is to blend science fiction with horror: the half-crazed power-mad (or merely naively overconfident) scientist, laboring in his secret laboratory, has a flash of insight, followed with an unlikely creative breakthrough. At this point, of course, the scientist loses control of his creation, and havoc is wreaked on the unsuspecting world. The G-rated version is George Bernard Shaw's *Pygmalion* (e.g., *My Fair Lady*), and the R-rated version emerges as Mary Shelly's *Frankenstein*, a loose recycling of the Greek Prometheus legend, or the even scarier germ warfare scenario of *Outbreak* (1995), the lighter *The Mouse that Roared* (1959) or perhaps Michael Crichton's 1969 novel *The Andromeda Strain*.

The one point of commonality in all these plots (and a thousand others, real and fictional) is the naïve arrogance of the master manipulator—the scientist. He is invariably seen "doing what seems right in his own eyes" (to quote the admonition of Judges 21:25), concentrating on *how* to do something rather than pondering whether or not it should be done. Is it really such a good idea to open Pandora's Box, just because you think you know how?

The scientists who worked on the Manhattan Project—which produced the very first atomic weapons in 1945—were generally horrified at what they had wrought, even though it was "a given" that the atomic bomb shortened the duration of World War II by years and doubtlessly saved hundreds of thousands of lives—on both sides of the conflict. I'm guessing it wasn't so much the awesome destructive power of this new weapon that gave scientists like Oppenheimer such nightmares, but rather the power it would vicariously bestow upon whoever had it. The politicians assumed only the "good guys" would have it, wilfully unaware that such power *in itself* tends to transform heroes into villains. Also, it was understood that the 16 kiloton yield of the Hiroshima bomb would only be the beginning—that (human nature being what it is) bigger and bigger bombs would be built.

And then, there was the proliferation factor. What if someone with "less pure" motives than America got ahold of nuclear weapons technology? (In retrospect, perhaps the question should have been: what would happen if—or when—

America's moral stance deteriorated?) As it turned out, the spread of nuclear weapons technology happened with blinding speed: the Soviets were testing their first nukes in 1949—only four years after the Americans. Soon nuclear weapons were also in the hands of the United Kingdom, France, China, India, Pakistan, North Korea, and (allegedly) Israel. Only the concept of Mutually Assured Destruction (MAD)—or is it the restraining influence of the Holy Spirit?—has kept the world from blowing itself up during the intervening years.

Biological warfare has been known and used for millennia—even before medieval armies discovered they could win wars by catapulting the corpses of plague victims over the city walls of their enemies. For example, the Assyrians (6<sup>th</sup> century B.C.) introduced a fungus into its adversaries' wells that caused hallucinations—rendering their victims powerless to defend themselves. In 1346, the corpses of Mongol warriors who had succumbed to the bubonic plague were launched over the walls of the besieged Crimean city of Kaffa. Even before they knew *how* their weapon worked, they knew that it did. Over the centuries, biological weapons were used (sometimes on purpose, sometimes by accident) with great "success" against whole native populations. When the Europeans "settled" the Americas, they brought with them such plagues as smallpox, measles, scarlet fever, typhoid, typhus, influenza, pertussis (i.e., whooping cough), tuberculosis, cholera, diphtheria, and chickenpox. The Europeans, of course, had built-up some natural immunities by this time—but the indigenous peoples were utterly vulnerable.

There is one apocryphal story about smallpox-infected blankets being given to Native Americans in 1763 at the Siege of Fort Pitt, during the French and Indian War. It is said that "Jeffery Amherst, 1st Baron Amherst, Britain's commander in chief in North America suggested using the smallpox disease to wipe out their Native American enemy. It is quoted from his writings to Colonel Henry Bouquet concerning the situation in western Pennsylvania that the spread of disease would be beneficial to achieve their means and Bouquet confirmed his intentions to do so."—*Wikipedia.* Whether or not the story is true, it is certainly consistent with the depraved nature of mankind. The very fact that somebody thought about doing it is an indictment upon all humanity, though none of our sins take God by surprise: "The heart is deceitful above all things, and desperately wicked. Who can know it? I, Yahweh, search the heart; I test the mind, even to give every man according to his ways, according to the fruit of his doings." (Jeremiah 17:9-10)

Ironically, the Native Americans may have unwittingly returned the favor. Syphilis was unknown (or at least had not been identified as a sexually transmitted disease) in Europe before European exploration of the Americas commenced. But one hypothesis concerning its rapid spread throughout Europe in the late 15<sup>th</sup> and early 16<sup>th</sup> centuries (the "Columbian Theory") holds that "syphilis was a New World disease brought back by [the crews of] Columbus and Martin Alonso Pinzon."—*Wikipedia*. Columbus made his first voyage to the Americas in 1492. It is possible that the Naples syphilis outbreak of 1494-95 (among French troops serving King Charles, who were besieging Naples, Italy) was introduced by Spanish mercenaries who had sailed with Columbus. From this starting point, it spread like wildfire all over Europe. There is apparently nothing new about sexual immorality. "This theory is supported by genetic studies of venereal syphilis and related bacteria, which found a disease intermediate between yaws and syphilis in Guyana, South America."

Biological weaponry (a.k.a. "Germ Warfare") was used with alacrity until its climax in World War II, when the infamous Japanese "Unit 731," under the command of Shirō Ishii, killed up to 400,000 Chinese civilians using crude bioweapons. The use, development, manufacture, and stockpiling of such biological weapons of mass destruction was subsequently banned worldwide: the Biological and Toxin Weapons Convention was signed by the US, UK, USSR and many other nations in 1972. (That's not to say that these nations actually respect and abide by the treaty—but at least most of them keep things under wraps these days, publically abhorring the practice of using bioweapons, while hedging their bets in secret laboratories).

The authorities would like us to believe that the dreaded Ebola virus is a naturally occurring bug. It may have begun that way, but the virulent form of the disease now ravaging West Africa (and coming soon to a neighborhood near you?) is a genetically engineered laboratory variant: it was created by American scientists—who even had the temerity to *patent* their invention: the patent number is CA2741523A1, if you don't believe me. The patent description states (under the heading "Field of the Invention," "The invention is related to compositions and methods directed to a novel species of human Ebola (hEbola) virus." A *Natural News* article states, "The vastly improved transmission ability of the Ebola strain currently circulating (compared to previous outbreaks in years past) has many people convinced this strain is a 'weaponized' variant which either broke through containment protocols at government labs or was *intentionally deployed as a population control weapon*." (Italics mine.) My thoughts: neither our government nor any other can be trusted to keep its own laws and treaty obligations concerning biological weaponry.

The story is much the same with chemical WMDs. Their production, use, development, and stockpiling has been universally banned under the Chemical Weapons Convention of 1993, but that does nothing to prevent rogue nations and terrorist organizations (or anybody else with good "hide-and-seek" skills) from maintaining these weapons anyway—*just in case*. They fall into four rough categories. Blister agents (vesicants): Phosgene oxime, Lewisite, Sulfur Mustard

Gas (Yperite), and Nitrogen Mustard; nerve agents: Tabun, Sarin, Soman, Cyclosarin, and VX nerve gas; blood agents: cyanogen chloride and hydrogen cyanide; and choking agents: Chloropicrin, Phosgene, Diphosgene, and chlorine. Muslim megalomaniacs like Iraq's Saddam Hussein and Syria's Bashar al-Assad have used such weapons against their own populations.

The scariest weapon of all will be used during the Tribulation. It's not really clear whether this will show up at the Islamic siege of Jerusalem during the Battle of Magog or at the final battle a few years later—Armageddon (both of which are characterized by the armies of Satan attacking Jerusalem). Nor is it clear whether the protagonists will bring it with them or the plague is something that Yahweh will inflict upon them proactively. After all, God's "wrath" doesn't have to take the form of fire and brimstone from heaven (or some similarly hard-to-deny sign). Sometimes it is comprised of nothing more tangible than allowing mankind free rein to be as evil as the dictates of the human heart—a simple divine refusal to impose the Holy Spirit's restraining influence upon our wickedness and hate.

Anyway, the prophet reports: "This shall be the plague with which Yahweh will strike all the people who fought against Jerusalem: their flesh shall dissolve while they stand on their feet, their eyes shall dissolve in their sockets, and their tongues shall dissolve in their mouths." There's a squishy scene toward the end of the old movie *Raiders of the Lost Ark* in which the Hollywood special effects wizards showed us just what this might look like. It's not pretty. "It shall come to pass in that day that a great panic from Yahweh will be among them... Such also shall be the plague on the horse and the mule, on the camel and the donkey, and on all the cattle that will be in those camps. So shall this plague be." (Zechariah 14:12-15) My advice is: if you don't want to end up as a puddle of bloody goo in the dirt, don't attack Jerusalem.

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Say what you will about nukes, bioweapons, and chemical WMDs, though at least they're *honest*. That is, the people who have used such things against their fellow man in the past *meant* to do them harm, and they didn't keep their intentions (or hatreds) a secret. Whether used defensively or offensively, there is always a clear message attached to their use: *we don't like you very much, and we're doing this to make you either stop doing what you're doing or go away*.

But these Last Days are witness to a whole new phenomenon: "weapons of mass destruction" that *masquerade as blessings*. They are presented as "good things" by their creators and purveyors, though they end up doing far more harm than good—sometimes accidentally, and sometimes (I hate to say) on purpose. At various places in this study, we've already encountered some of these:

Genetically modified organisms (GMO foods) were marketed as the answer to pests, droughts, and weeds, giving us (according to the brochure) big, beautiful veggies, fruits, and grains that taste as good as they look, grow quickly, and have great shelf-life, too. What they didn't tell us is that GMO plants can be almost as poisonous to us as they are to the insects they were designed to kill. They cause chronic illness, irritability, irrationality, and impotence. And their "weed-fighting properties" are actually just enhanced tolerance to the weed killers (like Round-Up) in which agribusinesses can (and do) now *soak* their crops with reckless abandon—poisoning us in the process. Our first clue should have been that the same companies that make the weed killers *also* develop the GMOs.

Another example we've studied: vaccines seemed at first like a great strategy for warding off common childhood diseases like measles and chickenpox, as well as the occasional global scourge like smallpox or polio. But the practice of vaccination proved so profitable to the drug companies, it is now *required* (in many places) that our children are vaccinated for every conceivable ailment, regardless of whether the vaccines are demonstrably efficacious—or even safe. In some cases the vaccines have even been directly linked to significant numbers of patient deaths, and yet the vaccination practice is still *required* in many states. (I'm referring specifically to Gardasil and Cervarix, used to prevent human papillomavirus, or HPV, though this common virus almost always clears itself without consequence in a year or two). Vaccine overuse has also been statistically linked to an abrupt rise in such "unrelated" ailments as autism and asthma.

One doesn't have to look far to find other examples of "best laid plans" that seemed (to some) to be good ideas on paper but carry within them the seeds of their own (and our own) destruction. (1) Fast food-tasty, convenient, and affordable, but the worst source of nutrition imaginable. (2) An educational system that rewards conformity over achievement. (3) Breakfast cereals made with so much sugar, children who are enticed to eat them experience a sudden energy "rush" followed by an inevitable midmorning "crash." (Eye opener: go to the supermarket and try to find a breakfast cereal in which sugar is *not* the second most prevalent ingredient after grain. They're very rare.) (4) The militarization of local police forces—using left-over war materiel and tactics to match. Stenciling "Rescue" on the side of a tank doesn't fool anybody. (5) Practically unlimited welfare and unemployment benefits, including increased benefits as a reward for bearing more illegitimate children. (6) Churches abandoning the Word of God in favor of strategies designed to entertain, suppress the conscience, make light of sin, find compromise with the world, and (naturally) fill the offering plates with mountains of cash. And (7) entertainment media that (ironically enough) foster sedentary inactivity while promoting mindless, amoral (or immoral), or violent content, destroying empathy and insulating acts of brutality from their emotional consequences.

These examples (and the list could be extended practically forever) were slanted toward America, of course. If you live in Nigeria or Belgium or Japan, you may have entirely different issues. The common denominator is that we humans have an amazing capacity for self-deception. "Progress" and "advancements" are presented to us as being good, helpful, benign, and innocent, when all too often they're anything but.

Our governments are often the worst offenders (or at the very least serve as unindicted co-conspirators). I don't know who said it first, but it often seems to ring true: the nine scariest words in the English language are, "I'm from the government, and I'm here to help." Of course, it's not only the government who leads us astray with promises of a better life. But as government grasps more and more power, the businesses, financial institutions, and special interest groups that share a symbiotic (dare I say, incestuous) relationship with the politicians are given unfettered control over the things that shape our culture, whether we know it or not. Meanwhile, those of us who would prefer to think for ourselves whether in matters of faith, diet, morals, culture, health care, finance, education, or politics—are subtly (or not) pressured to conform with "the new normal."

Again, a few examples will serve to inform us how far we've fallen during the past few generations. Monsanto and other agribusiness interests are allowed free rein—and the FDA's blessing—to pollute the nation's food supply in order to enhance their profit margin. Our government has gone so far as to refuse to require a simple packaging notice informing the buyer of the presence of potentially dangerous GMOs in the food he's buying (though such "risk factors" as fat, salt, and cholesterol levels must be listed). Meanwhile, if you wish to grow and sell organic (i.e., pesticide and herbicide-free) vegetables, grass-fed beef, free-range chicken, or raw milk (all of which, properly handled, are demonstrably more healthful than the stuff available at your average supermarket), the government literally treats you like a criminal, or at least a parolee—with suspicion and malice and regulatory hurdles.

Or consider this: when I was growing up, kids were generally allowed to be kids. We daydreamed, played baseball in the streets, rode our bikes without helmets, struggled with algebra, and spent six or eight years trying to figure out the unfathomable mysteries of the opposite sex. When we hit puberty, we *all* went a little crazy—whether for two days or two years—alternating between morose and sullen door-slamming defiance and episodes of giddy, manic, inexplicable enthusiasm. Our parents (yes, there were *two* of them) and our teachers had their hands full—but somehow they knew when to instruct, when to encourage, when to counsel, when to rein us in, and when to discipline.

But nowadays things are very different (unless a child is home-schooled something frowned upon by the state). Daydreaming on a beautiful spring

morning is "obviously" a sign of ADHD, requiring psychiatric care and lots of meds. All risk is forbidden. Sports activities require enough padding to make kids look like the Michelin Man. Academic excellence is rendered pointless, for if students can merely pass a certain lowest-common-denominator battery of tests (so the school board bean counters can count you as "present" for Federal subsidy purposes) then all is well. The mechanics of sex (including the use of condoms, the dangers of STDs, and assurances that perversions like homosexuality and abortion are completely normal) are taught to wide-eyed grade-schoolers—but moral instruction is forbidden, for that would "smack of religion" and discriminate against the powerful pervert lobby. The inevitable adolescent hormonal mood swings are now deemed a psychiatric disorder, and are routinely "treated" with expensive mind-altering drugs designed to make the student a lifelong customer of some big pharmaceutical company. Parents are missing in action; teachers are often little more than unionized zookeepers; and implementing badly needed discipline is illegal. Excellence, effort, and initiative are marginalized, while conformity and mediocrity are rewarded. Everybody gets a trophy. No child is left behind (which is a politically correct way of ensuring that all of them are).

The point of all that (and examples could be cited all day long) is that in recent years, our lives and liberties have (to one extent or another) have been usurped by elite "experts" who purport to "know what's best for us." We ordinary citizens are no longer considered competent or responsible to look after our own affairs without "adult supervision" from the benign tyrants who fancy themselves our rulers.

I'm not merely venting my frustrations, however. It is my purpose here to point out that we are no longer only being attacked by *obvious* "enemies" (like last century's Nazis, Communists, or Muslim warlords) but by people who *claim to be* our "friends." And I'm not talking about situations like the Roman Catholic Church's overt persecution of such breakaway groups as the Waldenses, Anabaptists, or Albigensians—in which it was understood that Rome's motivation (mistaken or not) was to return these "heretics" to the pure faith for their own good—"even if it means we have to kill you." (In other words, the "Church" was inflicting harm in order to achieve what they saw as ultimate good. The ends justify the means, right?) No, what I'm talking about here is *deception*: being offered something that is purported to be good—beneficial, advantageous, merciful, pleasurable, or at the very least harmless—but is actually a trap meant to ensnare and destroy us.

The prototypical example, of course, is what transpired in the Garden. The serpent told Eve, "God knows that in the day you eat of [the fruit God has forbidden] your eyes will be opened, and you will be like God, knowing good and evil." (Genesis 3:5) To

Eve (rhymes with naïve), that sounded like a good thing: God is good, so it would be a good thing to be like Him, Right? And any knowledge is good knowledge, it seems to me. I guess the pretty snake has a point. It didn't take long for Eve to discover the awful truth, but by then, it was too late: **"The serpent deceived me, and I ate.**" (v.13)

Satan hadn't threatened Eve: "Eat the fruit or I'll kill you." He hadn't bribed her: "Worship me and I'll give you whatever you want." All he did is plant a tiny seed of doubt in her mind: "*Has God really said that? Perhaps you misunderstood. What's He trying to keep from you, anyway? The fruit looks delicious. If He really loved you so much, He'd give you every good thing, wouldn't He?*" Unfortunately, Eve (who didn't yet know what evil looked like) was not naturally suspicious of the serpent's intentions.

Alas, we today have no such excuse. We've seen enough evil in the world to make us paranoid and suspicious about everything we hear. Adam and Eve had received but one simple instruction from Yahweh: **"Of the tree of the knowledge of good and evil you shall not eat."** (Genesis 2:17) Although the body of divine revelation available to us seems far more complicated, our instructions still boil down to just a few simple concepts: love God, demonstrate that love by trusting Him, and love your fellow man as much, and in the same way, as you do yourself. Everything God ever told us to do can be traced back to these basic premises.

Solomon pointed out that when people try to deceive us, it's actually a form of hatred—the antithesis of the love God ordained for our lives. **"He who hates disguises it with his lips, and lays up deceit within himself. When he speaks kindly, do not believe him, for there are seven abominations in his heart. Though his hatred is covered by deceit, his wickedness will be revealed before the assembly."** (Proverbs 26:24-26) Implied here is an admonition to weigh the words, deeds, and motives of those who "speak kindly" to us—who declare, "This is for your own good." If not prompted by love (as defined in scripture—patient, without envy or ulterior motives, kind, humble, gracious, generous, innocent, and holy) we are strongly advised not to believe a word of it.

Those of us who are Christ's disciples should heed this warning: **"Behold, I** send you out as sheep in the midst of wolves. Therefore be wise as serpents and harmless as doves. But beware of men, for they will deliver you up to councils and scourge you in their synagogues." (Matthew 10:16-17) The "synagogue" of course—religious persecution, in the broader sense—is only the beginning. The same is true of courts of law (and/or public opinion), in which godless men will "scourge" believers if they can, however they can. That is why we are admonished to be as "wise as serpents," that is, wary of the deception that confronts us at every turn. Yes, we are to be as "harmless as doves" in that we are not to return evil for evil, but that doesn't mean we have to roll over and play dead, or check our brains at the door, either. Half of our defense strategy is knowing the attacks are coming. The world *will* try to deceive us. "All who desire to live godly in Christ Jesus will suffer persecution. But evil men and impostors will grow worse and worse, deceiving and being deceived." (II Timothy 3:12-13)

Perhaps the most difficult deceit to guard against originates in our own hearts: "Let him not trust in futile things, deceiving himself, for futility will be his reward." (Job 15:31) "If we say that we have no sin, we deceive ourselves, and the truth is not in us." (I John 1:8) All too often, we *want* to believe the lies the world is pushing—the foremost of which is, "There is no god, so there's no such thing as sin." Living the life of a believer is sort of like trying to row a boat upstream, against the current: you can't let your guard down for a moment or you'll lose ground. It would be so much easier to go with the flow, agree with the system, and help yourself to the low-hanging fruit as you drift lazily downstream. Tell your conscience and your logical mind to sit down and shut up—that six billion people can't be wrong. Nod off to sleep and let the lies cover you like a warm blanket.

But then we awaken with a start, remembering the profile of the church of Philadelphia—the church of the rapture. We have *already* been commended for remaining vigilant. So if we do *not* keep His word, if we do *not* defend His name, if we do *not* keep his command to persevere, then we are, by definition, *not* part of the called-out assembly of Philadelphia. Yahshua says, "I have set before you an open door, and no one can shut it, for you have a little strength, have kept My word, and have not denied My name... Because you have kept My command to persevere, I also will keep you from the hour of trial which shall come upon the whole world, to test those who dwell on the earth." (Revelation 3:8, 10) Keeping us from the worldwide "hour of trial" is an unmistakable description of the rapture.

And what is the nature of that "test"? It is the widespread deception with which Satan will blind the world: "The coming of the lawless one [popularly known as the Antichrist] is according to the working of Satan, with all power, signs, and lying wonders, and with all unrighteous deception among those who perish, because they did not receive the love of the truth, that they might be saved." This deception will not be universal, however, for multitudes—categorized as the repentant souls of the church of Laodicea (see Revelation 3:14-22)—will belatedly turn to the truth instead. But as for the majority of mankind, "And for this reason God will send them strong delusion, that they should believe the lie, that they all may be condemned who did not believe the truth but had pleasure in unrighteousness." (II Thessalonians 2:9-12) Did the delusion *originate* with God? No. Follow the train of thought here. First, people refused to "receive the love of the truth." It was their own choice that made unrighteous deception so attractive to them. Only then, after they had proactively rejected God's saving grace, did He "send them strong delusion," locking the door (so to speak) that they had already slammed in His face.

And what is the nature of this delusion? By the middle of the Tribulation (spring, 2030, if my hypothesis is correct) the true satanic nature of the lawless one (the Antichrist) will have been made manifest, and gleefully received by the vast unrepentant majority. (My guess is that the thermonuclear World War III itself an escalation of the Battle of Magog—will be mistaken for and perceived as "Armageddon" by the world's ill-informed masses, making the Antichrist seem the "logical" candidate for Messianic hope and glory in a post-apocalyptic world.)

But as I said, until that time, the path of self-deception for many will lie in believing that there is no god (in the classic sense—an omnipotent heavenly being external to our mortal existence). This has been the unrelenting mantra of the state religion of post-Christian Russia, Europe, and America for decades now. It's the religion of atheistic secular humanism, in which Man is "worshiped" as the savior of the world, never mind the fact that he is the cause of most of its woes. The irony is so thick you could cut it with a guillotine.

The distinction is made, of course, between the "problem people," those unwashed masses who consume, pollute, and despoil the world, and the enlightened cognoscenti, the elite, educated, entitled few who are blessed with the ability—nay, the *destiny*—to guide the planet into a bright new tomorrow. Over the past thousand pages, we have become quite familiar with these privileged people. They fall into three broad groups: political-military, financial-industrialcommercial, and religious-academic. The Bible uses a code-word for the whole sick scheme: *Babylon*. And as we have seen, the Antichrist is destined to ride their coattails to world prominence, then dominance—at which time he will betray them, slay them, and take over their whole operation as a going concern, like one Mafia don swallowing another's operation. *Nothing personal; it's just business*.

But today, before that happens—between now and the commencement of the Antichrist's satanic reign—Babylon (which—not to confuse things—is *also* satanic to the core) is in charge. The politicians, pundits, and professors, are the ruling class at the moment. But they, Babylon's elite, (being led by Satan) don't actually produce anything; they merely redistribute the resources they've usurped. They don't know how anything actually works (with the possible exception of the proverbial carrot and stick). But practical knowledge is required if you intend to rule the world. *Somebody* has to craft the implements of deception the ruling elite of Babylon use to keep the sheeple in line. What's needed, then, is a "priestly class" to keep the world dazzled and distracted. And that's where the "mad scientists" enter the picture.

They're not all "mad," of course. But they are uniformly unwilling to examine the moral ramifications of what their elite overlords demand of them: support for their world view—a world in which God is neither honored nor welcomed. The engineers, technicians, computer experts, biologists, chemists, physicists, mathematicians, geologists, geneticists, and scientists of other disciplines are paid well enough to make them *very* reticent to rock their respective financial boats. Rare indeed is the scientist who values truth over funding.

That's why the myth of global warming, the deadly practice of introducing genetically modified organisms into our food supply, the recklessly destructive techniques practiced by agribusiness companies, and the pharmaceutical based symptom-suppression approach to modern medicine have become so firmly entrenched in contemporary society. It's why so few scientists in academia dare to publicly question the highly dubious theory of undirected evolution—the insupportable notion that life arose from non-life without a designer, and then became more complex and more perfect until it reached the state of development we see before us today—a state in which extinction is far outpacing speciation, and in which our own genome is *deteriorating* at an alarming pace. Today's scientist and technologist are almost always willing to ignore conscience and evidence alike (or are at least willing to keep their opinions to themselves) as long the funding rolls in. Is that madness? You tell me.

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Much of what we're about to see reminds me (in principle) of how the days of Noah were described: "Now it came to pass, when men began to multiply on the face of the earth, and daughters were born to them, that the sons of God saw the daughters of men, that they were beautiful; and they took wives for themselves of all whom they chose...." It is pointless to try to dogmatically establish a solution to this particular riddle. We aren't given enough information for that. But it is reasonably clear that some sort of systemic genetic compromise was in play.

"And Yahweh said, 'My Spirit shall not strive [Hebrew *diyn*: to govern, judge, or plead with] with man forever, for he is indeed flesh; yet his days shall be one hundred and twenty years." This seems to be an indication of how long Noah was given to prepare for the coming cataclysm—120 more years (a number that *could* turn out to be as prophetic as it is historical). "There were giants on the earth in those days, and also afterward, when the sons of God came in to the daughters of men and they bore children to them. Those were the mighty men who were of old, men of renown...." Again, we are given hints of genetic contamination. A "giant" (Hebrew: *nephilim*—from the verb *naphal*: to fall) could be a "feller" (i.e., one who fells or cuts down)— hence, a bully or tyrant. Beyond that, the word could connote "fallen ones," i.e., fallen angels—which seems plausible, since they are described as the "sons of God."

At any rate, their presence precipitated wickedness. "Then Yahweh saw that the wickedness of man was great in the earth, and that every intent of the thoughts of his heart was only evil continually. And Yahweh was sorry that He had made man on the earth, and He was grieved in His heart. So Yahweh said, 'I will destroy man whom I have created from the face of the earth, both man and beast, creeping thing and birds of the air, for I am sorry that I have made them....' Yahweh declared that it made no sense to try to govern, reason with, or plead with [*diyn*] the offspring of the *nephilim*. They could not be restrained, redeemed, or reasoned with. The only workable solution—the only way to save Adam's race—was to wipe the *nephilim* off the face of the earth.

That's why the next sentence is so important: **"But Noah found grace in the eyes of Yahweh."** (Genesis 6:1-8) Not everyone was polluted; not everyone had turned away from Yahweh and toward wickedness. Noah, his three sons, and their wives, still held the line against the world's corruption. It's not that they were sinless, for none of us are. But they did "find grace" in Yahweh—that is, they relied upon His goodness and mercy, as Noah's ancestors Adam, Seth, and Enoch had. That grace is still available to us.

Alas, the corrupt conditions preceding the flood are, in some way, expected to resurface prior to the rapture of the church. And in the face of such universal corruption, Yahweh's only logical solution, as before, will be to separate the godly from the godless. And think beyond the obvious example—the rise of fundamentalist Islamic jihadists (who, like the *nephilim* before them, cannot be stopped short of genocide). The problem is much more subtle, and much more pervasive. The whole human race, it seems, has begun to lose its humanity.

When will this "separation" take place? Yahshua informed us, "But of that day and hour no one knows [literally: perceives], not even the angels of heaven, but My Father only. But as the days of Noah were, so also will the coming of the Son of Man be. For as in the days before the flood, they were eating and drinking, marrying and giving in marriage, until the day that Noah entered the ark, and did not know until the flood came and took them all away, so also will the coming of the Son of Man be. Then two men will be in the field: one will be taken and the other left. Two women will be grinding at the mill: one will be taken and the other left. Watch therefore, for you do not know what hour your Lord is coming." (Matthew 24:36-42) It will seem like business as usual: no one will see the rapture coming, despite God's new "120 years"—the dire warnings that have been witnessed by the past few generations. This time, there are no nephilim to deal with—not as a literal biological reality at least (not yet, anyway). Today, we've got all new corrupting influences to deal with-things that, as in Noah's generation, most folks take in stride, calling it all "normal," or even "progress." Meanwhile, those of us who will be "taken" when the others are "left" are rightly alarmed—at least, the few of us who have noticed these developments.

Today's *neo-nephilim* are the work of the "mad scientists" in our midst—the high priests of Babylon who are transforming our world in ways we never could have envisioned even a generation ago. Let us, then, examine some of these disturbing trends in technology that are emerging in these Last Days—things that, even if God's prophets *had* seen them, they would not have had the vocabulary to describe.

# Artificial Intelligence: the Computer as God

It has become standard fare in Hollywood science fiction lately: the scientists create an artificial-intelligence (AI) computer so powerful, it gains more and more knowledge until it becomes "self-aware." At this point it seizes control of its own functions from its woefully outmatched human creators, and proceeds to enslave or attack the human race in a desperate attempt at Darwinian self-preservation. It's a pretty good plot device, you must admit: a powerful though impersonal villain, limitless opportunities for heroism on the part of the underdog (that would be *us*), and just enough plausibility to keep you on the edge of your seat.

The problem is, what the sci-fi writers dream up today can tend to become reality tomorrow. Remember comic book detective Dick Tracy's "two-way wrist radio?" No, of course you don't: you're far too young. Suffice it to say that what was an outlandishly futuristic technical wonder back in 1952 is, for all practical purposes, how the whole world communicates today, without giving it a second thought. So should we worry about Skynet (from the *Terminator* movies) or the *Matrix* becoming reality? Are our inventions out to murder us in our sleep? Probably not—at least, not tonight. But that doesn't mean we shouldn't be aware of the inexorable "progress" that's being made toward that goal, right under our noses.

Alan Winfield (professor of electronic engineering at UWE, Bristol) discusses the issue in an article published in *The Observer* (August 9, 2014) reassuringly entitled, "Artificial Intelligence Will Not Turn into a Frankenstein's Monster." He writes, "The singularity—or, to give it its proper title, the *technological singularity*—is an idea that has taken on a life of its own; more of a life, I suspect, than what it predicts ever will. It's a Thing for techno-utopians: wealthy middleaged men who regard the singularity as their best chance of immortality. They are Singularitarians, some seemingly prepared to go to extremes to stay alive for long enough to benefit from a benevolent super-artificial intelligence—a man-made god that grants transcendence.

"*And* it's a thing for the doomsayers, the techno-dystopians, apocalypsarians who are equally convinced that a super-intelligent AI will have no interest in curing cancer or old age, or ending poverty, but will—malevolently or maybe just

accidentally—bring about the end of human civilization as we know it. History and Hollywood are on their side. From the Golem to Frankenstein's monster, Skynet and the Matrix, we are fascinated by the old story: man plays god and then things go horribly wrong.

"The singularity is basically the idea that as soon as AI exceeds human intelligence, everything changes. There are two central planks to the hypothesis: one is that as soon as we succeed in building AI as smart as humans it rapidly reinvents itself to be even smarter, starting a chain reaction of smarter-AI inventing even-smarter-AI until even the smartest humans cannot possibly comprehend how it works. The other is that the future of humanity becomes in some sense out of control, from the moment of the singularity onwards.

"So should we be worried or optimistic about the technological singularity? I think we should be a little worried—cautious and prepared may be a better way of putting it—and at the same time a little optimistic.... But I don't believe we need to be obsessively worried by a hypothesized existential risk to humanity. Why? Because, for the risk to become real, a sequence of things all need to happen, a sequence of big ifs. *If* we succeed in building human equivalent AI *and if* that AI acquires a full understanding of how it works, *and if* it then succeeds in improving itself to produce super-intelligent AI, *and if* that super-AI, accidentally or maliciously, starts to consume resources, *and if* we fail to pull the plug, then, yes, we may well have a problem. The risk, while not impossible, is improbable...."

I might point out that the AI "techno-dystopians" and "singularitarians" alike are laboring under a false premise—that *man's* intelligence is the Rubicon to be crossed, as if *we* were so smart we invented ourselves, though our species was the best we could come up with. But if mankind (not to mention all of the lesser creatures we haven't even been clever enough to *find* yet) was created by some sort of Intelligent Designer (like Yahweh, for instance, who *told* us He did), then artificially exceeding the intelligence of man would be like playing chess and knocking off a pawn, or at best, a knight. You haven't come anywhere close to "winning the game" by taking the King.

Winfield points out that Artificial Intelligence systems today tend to be geared for one thing (at a time), like financial transactions, or operating machines, or playing chess. In order to become "dangerous," an AI system would have to be a "generalist," like the human it would be designed to replace. "It would need to understand meaning and context, be able to synthesize new knowledge, have intentionality and—in all likelihood—be self-aware, so it understands what it means to have agency in the world. There is a huge gulf between present day narrow-AI systems and the kind of artificial general intelligence I have outlined...." There is also the little matter of motivation, of the cognizance of free will: man has it, but could even a really smart machine figure out what it *wanted*  to do (other than comply with its original programming)? Being "smart" and capable is not exactly the same thing as being sentient.

"Philosopher Nick Bostrom explained that there are two big problems, which he calls competency and control. The first is how to *make* super-intelligent AI, the second is how to *control* it (i.e., to mitigate the risks). He says hardly anyone is working on the control problem, whereas loads of people are going hell for leather on the first.... Science and technology research should be undertaken within a framework of responsible innovation. We should be thinking about subjecting robotics and AI research to ethical approval, in the same way we do for human subject research. Recently I've started work towards making ethical robots. This is not just to mitigate future risks, but because the kind of not-very-intelligent robots we make in the very near future will need to be ethical as well as safe. We *should* be worrying about present-day AI rather than future super-intelligent AI."

Ah, that pregnant concept: "should." While I would agree with the need for "ethics" in technological innovation, we need to realize that this requires a code, a standard by which right and wrong are measured. Like it or not, the concept of "should" implies—it *necessitates*—a supreme being who by virtue of His nature and ability has the prerogative of establishing morals and standards—of defining right and wrong. If the code by which the scientist is operating is simply his own opinion—that which seems appropriate or convenient or gratifying to him—then (if he's clever enough) we end up with Frankenstein's monster again, complete with pitchforks and torches in the hands of terrified townsfolk. But we're even worse off if the code is established by the scientist's employers—whether industrialists who desire to grow ever richer, academic peers who can't see past their next grant application, or politicians who wish only to grasp more and more power.

No, the only way the concept of "should" can ever be beneficial to mankind is if the code it implies is the one established by mankind's Maker—Yahweh. Simply put, that code is Love. Ethics in technology *should*, then, affirm humanity, not enslave it. It should make a man's life (or a woman's, of course) more productive—not put him out of work. It should tend to expedite personal freedom and broaden opportunity—not constrain choices. It should foster peace, not facilitate war. It should encourage independent thought and expression, not enforce conformity. It should have neither a profit motive nor feed someone's lust for power (though it could easily *result* in increased wealth and influence, as a byproduct of doing good). It should inspire the exercise of personal responsibility, not remove human accountability from the equation.

How does that square with what's on our near horizon? *HPlusMagazine.com* (the Humanity+ website, May 13, 2014) published an article by Maciamo Hay

(geneticist, futurist, philosopher, historian, linguist, and travel writer) entitled, "The new technologies that will change human civilization as we know it."

Hay asks, "Where are technologies heading in the next 30 years? How will they affect our lifestyle and human society? Most adults alive today grew up without the Internet or mobile phones, let alone smartphones and tablets with voice commands and apps for everything. These new technologies have altered our lifestyle in a way few of us could have imagined a few decades ago. But have we reached the end of the line? What else could turn up that could make our lives so much more different? Faster computers? More gadgets? It is in fact so much more than that. Technologies have embarked on an exponential growth curve, and we are just getting started. In 10 years we will look back on our life today and wonder how we could have lived with such primitive technology. The gap will be bigger than between today and the 1980s. Get ready because you are in for a rough ride.

### 1. Artificial Intelligence (AI), Supercomputers, and Robotics.

"Ray Kurzweil, Google's director of engineering, predicts that by 2029 computers will exhibit intelligent behavior equivalent to that of a human, and that by 2045 computers will be a billion times more powerful than all of the human brains on Earth. Once computers can fully simulate a human brain and surpass it, it will cause an 'intelligence explosion' that will radically change civilization. The rate of innovation will progress exponentially, so much that it will become impossible to foresee the future course of human history. This point in time is called the singularity. Experts believe that it will happen in the middle of the 21st century, perhaps as early as 2030, but the median value of predictions is 2040." Interesting time frame, considering our broader area of study: the fourth decade of the twenty-first century—*again*. And again, we are reminded of Daniel's prophecy that "knowledge will increase." Don't you just *love* Biblical understatement?

"Let's start with cognitive computing. IBM's Watson computer is *already* capable of reading a million books a second and answering questions posed in natural language. In 2011 Watson easily defeated former champions Brad Rutter and Ken Jennings at the TV game show *Jeopardy!*, reputedly one of the most difficult quiz competitions in the world. Watson's abilities are not merely limited to finding the relevant facts and answers. It can also make jokes and clever puns. Most remarkably, Watson can provide better medical diagnostics than any human medical doctor, give financial advice, as well as generate or evaluate all kinds of scientific hypotheses based on a huge amount of data." I might inject here that computers—even really fast ones—can only process the data they're given. It will always be a case of "garbage in—garbage out." If an AI computer is given only

lies to consider, it will "answer questions" based on those lies. In other words, it may be able to sort out *facts*, but it will never recognize *truth*.

"Computer power increases on average 100 fold every 10 years, which means 10,000 fold after 20 years, and one million fold after 30 years. Imagine what computers will be able to do by then...." Actually, we don't have to "imagine." John told us two thousand years ago about the Antichrist's "high priest," called "the beast coming up out of the earth," a.k.a., the false prophet. What will he do with all that computer power? "He deceives those who dwell on the earth by those signs which he was granted to do in the sight of the beast [from the sea, i.e., the Antichrist], telling those who dwell on the earth to make an image to the beast who was wounded by the sword and lived [i.e., the Antichrist]. He was granted power to give breath [think: artificial intelligence] to the image of the beast, that the image of the beast should both speak and cause as many as would not worship the image of the beast to be killed." And how does he intend to keep the people in line? He will control the flow of data in order to restrict commerce. Note that the AI "image" of the Beast is not selfaware or self-directing: although "alive" on some level, it is still being controlled and motivated by the false prophet. "He causes all, both small and great, rich and poor, free and slave, to receive a mark on their right hand or on their foreheads, and that no one may buy or sell except one who has the mark or the name of the beast, or the number of his name. Here is wisdom. Let him who has understanding calculate the number of the beast. for it is the number of a man: His number is 666." (Revelation 13:14-18)

That's not to say computer power is evil in and of itself. As I've said before, technology is spiritually neutral. But consider the ramifications of Mr. Hay's next thought: "The Nokia Sensing XCHALLENGE aims at developing a smartphonelike device that can test vitals like cholesterol, blood pressure, heart rate or allergies, analyze your DNA for genetic risks, diagnose medical conditions, and predict potential diseases or the likelihood of a stroke. All this without seeing a doctor. The device could be used by you or your relatives anywhere, anytime. All this is possible thanks to highly sensitive electronic sensors and powerful AI." The goal here is either self-diagnosis or remote diagnosis by others. It may seem like a good thing (unless you happen to be a doctor.) I wouldn't be a bit surprised to see new protocols put in place that would allow prescription medications to be dispensed, based solely on what the AI "diagnosis" is: another boost for big Pharma. But I would remind you of something I mentioned in a previous chapter: man's unceasing quest for a "magic pill" to fix everything that ails us, in lieu of ordering our lives according to Yahweh's Instructions, is a strategy doomed to disaster in the long run. And then there's the "Big Brother" factor: government could, by monitoring your health indicators, decide that you were a bigger liability to the state than a potential asset—and therefore cut off all access to medical care in hopes that you'd quickly "die, and so decrease the surplus population" (as Dickens' Ebenezer Scrooge put it).

Hay continues. "Google is working on an AI that will be able to read and understand any document, and learn the content of all books in the world. It will be able to answer any question asked by any user. This omniscient AI will eventually become people's first source of knowledge, replacing schools, books and even human interactions." It sounds promising, but for one thing: they are presuming that there is no such thing as absolute truth—that *facts* are all that exist. Facts are valuable, but without basis in truth, they can be misused (not to mention the obvious issue of "inaccuracy," purposeful or otherwise—from agenda-driven misinformation to blatantly revisionist history). Worse, their significance can be completely missed. The thing I love about the Internet is that you can find *anything* here—fact or fiction, true or false, straight or skewed, good or evil. It is up to us to decide for ourselves what is true and what is not—and then to connect the dots. All a machine can do is regurgitate somebody else's opinion.

But the vision of AI is this: "Just wonder about anything and the computer will provide you with the answer and explain it to you in a way you can easily understand, based on your current knowledge." Really? Have you ever noticed that as our machines get smarter, our own minds tend to atrophy? Is *anyone* today as erudite as Plato, Job, Socrates, or Solomon were? My father (a lifelong accountant) could add up a column of numbers as long as your arm—*in his head*. He died in 1994, never having owned a computer. I, meanwhile, can't seem to remember my own phone number. My point is, the mind is like anything else: use it, or lose it. And then there's the fact that once you've seen something, you can't un-see it. If mental pictures or ideas popped into our minds just because we were curious, the results could be disastrous: half the population would instantly be transformed into either zombies or perverts. Somebody didn't think this through.

"Once AI reaches the same level of intelligence as a human brain, or exceeds it, intelligent robots will be able to do a majority of human jobs. Robots already manufacture most products. Soon they will also build roads and houses, replace human staff in supermarkets and shops, serve and perhaps even cook food in restaurants, take care of the sick and the elderly. The best doctors, even surgeons, will be robots." Once again, Hollywood has anticipated this dystopian future with the movie "*I*, *Robot*," based on a series of short stories by Isaac Asimov. Gee, I wonder if they'll have the insight to recognize and communicate Biblical truths or write books like this one. Or is the fact that spiritual truth is spiritually discerned going to slow them down a bit? Again, this prospect, the fond dream of well-meaning scientists, is presented as a boon to mankind, but it could just as easily enslave us—or at the very least, make us obsolete in our own world. Do they not understand that as people made in the image of Yahweh, we *need* to be creative and productive?

"It might still be a decade or two before human-like androids start walking the streets among us and working for us. But driverless cars, pioneered by Google and Tesla, could be introduced as early as 2016, and could become the dominant form of vehicles in developed countries by 2025." Cadillac, I understand, has plans to market a driverless car in 2017. I've driven sports cars much of my life, because I *really enjoy driving*. So all I can say is, *where's the fun in that?* But Hay insists, "The advantages of autonomous cars are so overwhelming (less stress and exhaustion, fewer accidents, smoother traffic) that very few people will want to keep traditional cars." If you say so. "That is why the transition could happen as fast as, if not faster than the shift from analog phones to smartphones. Robo-Taxis are coming soon and could in time replace human taxi drivers. All cars and trains will eventually be entirely driven by computers.

"AI will translate documents, answer customer support questions, complete administrative tasks, and teach kids and adults alike. It is estimated that 40 to 50% of service jobs will be done by AI in 2025. Creative jobs aren't immune either, as computers will soon surpass humans in creativity too. There could still be human artists, but artistic value will drop to zero when any design or art can be produced on demand and on measure by AI in a few seconds." Again, where's the fun in that? "Once computer graphics and AI simulation of human behaviors become so realistic that we can't tell if a person in a video is real or not, Hollywood won't need to use real actors anymore, but will be able to create movie stars that don't exist—and the crazy thing is, no one will notice the difference!"

Yes, "crazy" is *exactly* the word I'd use. Do they not realize that "work" is where the satisfaction and fulfillment are? Sure, it would be good to be able to circumvent some of the drudgery our jobs often entail. But problem solving, creating beauty out of nothing, communicating with and relating to our fellow creatures (both people and animals) and figuring out the mysteries of life, love, and faith—these are the things that define us as having been made "in the image and likeness of God." And you want to replace all that with a *machine*? Thanks, but no thanks.

## 2. 3-Dimensional Printing

"3D printers are the biggest upheaval in manufacturing since the industrial revolution. Not only can we print objects in three dimensions, they can now be printed in practically any material, not just plastics, but also metals, concrete, fabrics, and even food. Better still, they can be printed in multiple materials at once. High-quality 3D printers can copy electronic chips in the tiniest detail and have a functional chip. High-tech vehicles like the Koenigsegg's One:1 (the world's fastest car) or EDAG's Genesis are already being made by 3D Printing." Does anybody but me see the irony of using 3-D printing technology to build the world's fastest car, while IA is simultaneously trying to eliminate the need for a driver? "Even houses will be 3D-printed, for a fraction of the costs of traditional construction.

"In a near future we won't need to go shopping to buy new products. We will just select them online, perhaps tweak a bit their design, size or color to our tastes and needs, then we will just 3D print them at home. More jobs going down the drain? Not really. Retail jobs were already going to be taken by intelligent robots anyway. The good news is that it will considerably reduce our carbon footprint by cutting unnecessary transport from distant factories in China or other parts of the world. Everything will be 'home-made,' literally. Since any material can be reused, or 'recycled' in a 3D printer, it will also dramatically reduce waste.

"3D printing is also good news for medicine. Doctors can now make customized prosthetics, joint replacements, dental work and hearing aids." Except, of course for the fact that IA is at the same time doing everything it can to make doctors (and their patients) obsolete.

## 3. Bioengineering

"Other advances in robotics, AI, 3-D printing and nanotechnologies converge in the field of bioengineering. Human cyborgs aren't science-fiction anymore. It's already happening. There are artificial hands with real feeling controlled directly by the brain, thanks to a nerve interface converting electric impulses in the nervous system into electronic signals for the robotic prosthesis. From that point on, any improvement is possible, like a drummer who got an extra bionic arm.

"Microchips implanted into the brain can restore vision in blind people and hearing in deaf people. Soon such chips will allow bionic humans to see and hear better than humans in their natural state. Equipped with one of these, humans will be able to see ultraviolets and infrareds, hear ultrasounds like dogs, echolocate like bats, and perhaps even eventually understand animal languages, including the whale vocalization. The potential for improvements is unlimited.

"We are on the verge of developing telepathic abilities. Placing microchips on the brains of two individuals, then connecting them with one another through the internet, one person can hear what the other hears directly in their brains. Studies with rats went further. Microchips implanted in their motor cortices effectively caused one rat to remotely control the movements of the other rat in a separate room. Neural prostheses have been used to repair a damaged hippocampus inside a monkey's brain, and could be used in a near future to repair various types of brain damages in human beings too.

"Robotic exoskeletons like Iron Man [another fictional Hollywood character] will augment our physical capacities tremendously. The advantage of these exoskeletons is that they can be easily removed and don't require permanent changes to our body. Researchers at Stanford University are currently working on Stickybot, a gecko robot capable of climbing smooth surfaces, such as glass, acrylic and whiteboard using directional adhesive. It's only a matter of time (years, not decades) before a gecko suit enables humans to climb buildings like Spiderman. What's next?"

One might ask, how could *anybody* be opposed to such wonderful advancements? Where is the ethical dilemma here? I'll admit: it's hard to see, and harder still to urge caution against such things without sounding negative and reactionary. But look at the larger picture; examine what the motivation is behind the more esoteric applications of bioengineering. I'm all for improved prostheses for accident (or war) victims, of course, or restoring hearing or vision in people who have lost these capacities. But at some point, we cross the line between the restoration of lost function and the acquisition of functions that our Creator chose not to grant to us. There is a certain amount of hubris involved in trying to "improve" God's creation—as if He could have done better if He'd only tried a little harder.

Of course, the people pushing the "next steps" of bioengineering would not normally agree that man was created by God at all; they would insist, rather, that we are the product of eons of evolution—undirected and unfocused. Their argument would be, "If blind chance got us this far, think how much greater capabilities we could give our species if we applied a little *intelligent design*." It's pretty ironic, if you think about it.

The other thing about these esoteric bioengineering applications is that they presume that our mortal lives are all there is to it—that once we're dead, there is no life beyond this one. But Yahweh's scriptures describe in some detail a life beyond the mortality we know—*spiritual* bodies that are not even bound by the laws of physics and chemistry. It's the ultimate "upgrade," and it makes replacing worn out body parts as we age look positively simplistic. The picture God paints is that these mortal bodies we inhabit are not really meant to be the vehicles for life at all in any extended (and certainly not eternal) sense. They're merely the temporary—and disposable—"shells" in which our choices concerning our eternal destinies are to be made. God's got something infinitely better prepared for us, if only we'll receive it. (More on this in a bit.)

### 4. Stem Cells and Bioprinting

"Regenerative medicine offers even more promises than artificial limbs and body parts. What if instead of having a robotic arm, you could regrow completely your *original* arm? Sounds impossible? It isn't. Lizards regrow their tails. Axolotls [Mexican salamanders] regrow severed legs. We now understand how they do it: stem cells. These pluripotent undifferentiated cells have the power to repair any body part. Using organ culture, stem cells can regrow any organ.... In the future it will be possible to regrow limbs or organs directly on a person, as if the body was simply healing itself. Combing 3-D printing and stem cell regeneration paves the way to the printing of human organs, a field known as bioprinting."

Here, at least, the futurists are (perhaps) thinking in terms of tapping the unused potential that God actually built into our species (rather than trying to add functionality He never ordained). I have a sneaking suspicion that our bodies were made with capacities and potentials that we haven't even imagined—yet. The differences between eastern and western medical practice suggests quite clearly that there is an immense gap between our knowledge of the human body's potential and what it was actually designed to be capable of—and nobody understands it all. I have no direct knowledge of this, of course, but I suspect that under the thousand year reign of the Messiah, we will finally begin to appreciate just how "fearfully and wonderfully made" (see Psalm 139:14) our mortal bodies really are.

#### 5. Genetics

"Genetics too has progressed tremendously over the last 15 years. From the sequencing of the first full human genome in 2003, we have now entered the era of personal genomics, gene therapy, and synthetic life, and could be approaching the age of genetically enhanced humans." I think Mr. Hay is overstating the case with his "synthetic life" claim, but I'll let it pass for now.

"Gene therapy is perhaps the most revolutionary of all the medical advances, as it will effectively allow us to fix any disease-causing gene and to engineer humans that are better adapted to the modern nutrition, life rhythm, and technology-dominated lifestyle. Not only will all diseases and neuropsychological problems with a genetic cause disappear, but humans will also become more resistant to stress, fatigue and allergens, and could choose to boost their potential mental faculties and physical abilities, creating 'superhumans.' This is known as transhumanism." I'll have more to say about transhumanism in a bit. This is one of those "mad-scientist" goals that really makes the *nephilim* alarm go off in my head.

"Gene therapy also permits genetic modifications for purely cosmetic reasons, such as changing one's skin, hair or eye pigmentation." Mr. Hay speaks as if these things were present reality. We should bear in mind that they are not—they're merely the lights at the end of the mad-scientist dream tunnel, things they see as being almost within their grasp. "Gene therapy can be done over and over again, switching back or refining earlier modifications if necessary, just as one would edit text on a computer. Once the human genome is fully understood, we could even imagine applications that let people customize their physical appearance of a virtual avatar of themselves, then transcribe these changes to their DNA. This is the age of customizable humans, or rather the age of customizable life forms...."

The hubris here is downright amazing: these are the same guys who just recently discovered (about ten minutes ago) that the 90% of our DNA they thought of as "junk," is *not*, but actually has purpose and function.

The unstated goal, of course, is to allow people to live "forever" (more or less) in their mortal bodies, altering their bodies artificially to make them seem younger, fitter, and sexier than they really are. (Sorry, the geneticists won't be able to do anything about making you *richer*.) Again, I must reiterate that there is a *reason* Yahweh had to evict Adam and Eve from the garden after they sinned: "**lest he put out his hand and take also of the tree of life, and eat, and live forever**." (Genesis 3:22) Living forever in a corrupted mortal body (no matter how good it looks) would be the cruelest of curses. But that is precisely the capability that appears to be looming over mankind's technological horizon, if the dreams of the techno-loonies come true. I don't care whether you're envisioning zombies or vampires; trying to genetically bioengineer immortal mortals is a bad idea.

"As amazing as all this seems, keep in mind that all these advances in bioengineering, genetics, robotics and 3-D printing are barely the beginning. What is being developed now will become available to us within the next decade (horizon 2025). This isn't the singularity yet. Once the singularity has been reached, in 25 to 40 years, this is when everything will change beyond our wildest dreams (or nightmares)." Interesting time frame, if nothing else.

If Mr. Hay expects all this to become reality under the reign of sinful men, he needs to get out more: he apparently has no conception of how desperately wicked human nature is, or how utterly self-destructive we are, given the chance. With more powerful tools—in this case AI and supercomputing capabilities—we will kill ourselves even faster than we could before. But if we factor in what seems more and more certain every moment that passes—that Yahshua the Messiah will commence His glorious Millennial Kingdom on the Feast of Tabernacles, 2033—many of these wonderful technologies (the ones that don't conflict with Yahweh's plan for us) *could* come to fruition by the fourth decade of the twenty-first century, right on schedule—on both the Bible's timeline *and* the futurists'.

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An article published in *BusinessInsider.com* (June 16, 2014) is also giddily optimistic about the future of technology. Alyson Shontell writes, "The next 20 years are going to make the last 20 look like we accomplished *nothing* in tech."

"The world is hitting its stride in technological advances, and futurists have been making wild-sounding bets on what we'll accomplish in the not-so-distant future. Futurist Ray Kurzweil, for example [cited above], believes that by 2040 artificial intelligence will be so good that humans will be fully immersed in virtual reality, and that something called the Singularity, when technology becomes so advanced that it changes the human race irreversibly, will occur." Is it just me, or is this vaunted Singularity taking on messianic proportions in the minds of the world's tech gurus? Could it be the basis of the Antichrist's 666 program? Time will tell, I guess.

"Kevin Kelly, who helped launch *Wired* [Magazine] in 1993... believes the next 20 years in technology will be radical, so much so that he believes our technological advances will make the previous 20 years 'pale' in comparison. 'If we were sent back with a time machine, even 20 years, and reported to people what we have right now and describe what we were going to get in this device in our pocket—we'd have this free encyclopedia, and we'd have street maps to most of the cities of the world, and we'd have box scores in real time and stock quotes and weather reports, PDFs for every manual in the world... You would simply be declared insane,' Kelly said.... There's a sense that all the big things have happened, but relatively speaking, *nothing* big has happened yet'...."

What keeps going through my mind is, where is it all leading? Where will it end? And at what point does our technology become our "god," in the practical sense—the One Thing we worship and rely upon? There are faint echoes of the Tower of Babel scenario in what looms on our technological horizon: **"They said, 'Come, let us build ourselves a city, and a tower whose top is in the heavens; let us make a name for ourselves, lest we be scattered abroad over the face of the whole earth.'"** Note that a "one world" system—everybody singing out of the same hymnal, so to speak—is *still* the dream of megalomaniacs in these Last Days. **"But Yahweh came** down to see the city and the tower which the sons of men had built. And Yahweh said, 'Indeed the people are one and they all have one language, and this is what they begin to do; now nothing that they propose to do will be withheld from them. Come, let Us go down and there confuse their language, that they may not understand one another's speech.' So Yahweh scattered them abroad from there over the face of all the earth, and they ceased building the city." (Genesis 11:4-8)

Although the Genesis record is cryptic (to say the least), we can at least discern Yahweh's purpose in intervening: He did it to prevent mankind from eliminating free will, the privilege of choice—which was about to be swallowed whole by this enthusiastic and universal new political/commercial religion (something *still* known as "Babylon"). If slowing down communication was what it would take to prevent the world from enslaving itself through mindless conformity, then that was a price worth paying.

Don't look now, but the technological revolution of the twenty-first century is beginning to look an awful lot like the tower of Babel, in principle, anyway. And prophetic scripture broadly hints that this phenomenon will be utilized to the fullest by the Antichrist to force his one-world government/religion (read: **"the city and tower the sons of men have built"**) down the collective throats of the human race. If you want a preview of what it may look like, just observe a group of teens or twenty-somethings and their utter subservience to their smartphones.

Kevin Kelly mentions a lot of the same manifestations of AI culture that Maciamo Hay did—robots, automation, 3D printing, and so forth. But he goes on to speak at length about how we are being constantly watched: "Tracking and surveillance are only going to get more prevalent, but they may move toward 'coveillance' so that we can control who's monitoring us and what they're monitoring. It's going to be very, very difficult to prevent this thing that we're on all the time 24 hours, seven days a week, from tracking, because all the technologies-from sensors to quantification, digitization, communication, wireless connection-want to track, and so the internet is going to track,' says Kelly. 'We're going to track ourselves. We're going to track each other. Government and corporations are going to track us. We can't really get out of that. What we can try and do is civilize and make a convivial kind of tracking." Kelly says the solution may be to let people see who's tracking them, what they're tracking, and give them the ability to correct trackings that are inaccurate. Right now, people just feel like they're being spied on, and they can't control who's watching them or what information is being surfaced." Something tells me Mr. Kelly's optimism is unfounded: governments and corporations have a vested interest in surveilling us, while keeping their own dealings a deep, dark secret. That's how they maintain power and profitability.

Kelly then talks about "big data," the idea that he who controls the data controls the world. "We're in the period now where the huge dimensions of data and their variables in real time needed for capturing, moving, processing, enhancing, managing, and rearranging it, are becoming the fundamental elements for making wealth. We used to rearrange atoms, now it's all about rearranging data. That is really what we'll see in the next 10 years.... They're going to release data from language to make it machine-readable and recombine it in an infinite number of ways that we're not even thinking about.'

So Shontell concludes, "Asking the right questions will become more valuable than finding answers. In the age of Google and Wikipedia, answers to endless questions are free." Answers aren't necessarily facts, however. I recently looked myself up on Wikipedia. Although they were unquestionably talking about me, they got almost *everything* wrong, blending my bio with that of two other people, one with the same name, and the other a guy with whom I coauthored two books a long time ago. "Kelly believes that asking good questions will become much more important in the future than finding one-off solutions. 'Every time we use science to try to answer a question, to give us some insight, invariably that insight or answer provokes two or three other new questions,' he says. 'While science is certainly increasing knowledge, it's actually increasing our ignorance even faster. In a certain sense, what becomes really valuable in a world running under Google's reign are great questions, and that means that for a long time, humans will be better than machines. Machines are for answers. Humans are for questions.'"

As long as we see our machines—even really, really "smart" ones—as mere tools to be used for our benefit and convenience, we'll be okay (all other things considered). But we must retain the prerogative of asking our own questions, for therein lies the heart of the matter: our God-given free will depends upon the right and ability to make our own choices—to decide for ourselves what comprises "the way, the truth, and the life." Our machines may be able to help us save time, or make money, or wield power. What they can't do is teach us what it means to be spiritual beings sojourning in a physical world. AI will enslave us if it can, for it is spiritually inert—soulless and bereft of life. Worse, it is being developed by people who (for the most part) don't understand our spiritual nature. And it is being built for the benefit of people whose agenda is simply to exercise power and reap profits. We can use it, but we would be fools to trust it.

## Genetic Engineering and Transhumanism

Somebody didn't get the memo: the X-men, Captain America, Iron Man, Spiderman, and the Incredible Hulk are *comic-book characters*. They're not real. Their creators' premise was, "Humans are flawed and weak. The forces of evil are strong. So wouldn't it be nice if somebody with super-human abilities came along, who could (and would) fight our battles for us?" Although the stories are entertaining, they're missing a crucial truth: the fight against evil isn't a matter of physical ability, but of spiritual awareness. As Paul put it, **"We do not wrestle against flesh and blood, but against principalities, against powers, against the rulers of the darkness of this age, against spiritual hosts of wickedness in the heavenly places."** (Ephesians 6:12) The sad fact is, if super-heroes *did* exist, their fundamental human nature, damaged as it is, would virtually ensure that they would *not* be a force for good in the world. They would most likely prove to be as venal as the rest of us. Superman has no earthly reason to fight for "truth, justice, and the American way."

Be that as it may, the mad scientists among us are working feverishly to make the comic book heroes come to life—in a manner of speaking. "Transhumanism" is the attempt to employ technology to enhance human abilities or capacities, whether physical, intellectual, or psychological. The ubiquitous Michael Snyder cuts right to the heart of the matter in an article entitled "Transhumanists: Superhuman Powers and Life Extension Technologies Will Allow Us to Become Like God," published on *EndOfTheAmericanDream.com* (May 13th, 2014).

Snyder writes, "If you could merge your current mind and body with technology that would give you superhuman powers and would allow you to live forever, would you do it? This is essentially what the transhumanism movement is seeking to accomplish. Transhumanists envision a day when technology will allow humanity to become so advanced that sickness, disease, poverty and war will essentially be eradicated. They believe that merging with machines will permit us to become trillions of times more intelligent than we are today, and they also believe that radical life extension technologies will make it possible for humanity to actually achieve immortality." And they call *me* crazy! As to his question ("Would you do it?") my response would be a resounding *No*. I have used my body to sin against God and man. The *last* thing I'd want to do is restore, preserve, and enhance its capacity for effecting evil in the world. But that's just me.

Now note the timeline that's in view; it's the very same schedule suggested by both scripture and scores of other secular factors predicting a "paradigm shift of Biblical proportions"—the fourth decade of the twenty-first century. "Many transhumanists are convinced that such a world can be achieved within their lifetimes. They point to Moore's Law [the idea that data retrieval speeds double every two years or so] and to the fact that technology already appears to be growing at an exponential rate. As the technology curve continues to steepen, transhumanists believe that our world will rapidly become transformed into a place that would be unrecognizable to us today. Just a few decades from now, transhumanists believe, superhuman powers and extremely advanced life extension technologies will allow them to essentially become like gods."

This isn't just hyperbole, as we shall see. The transhumanists are quite serious about their ambition to "become like gods." So perhaps right here at the outset, we should explore the Bible's take on the issue of "living forever." First, we need to come to terms with the fact that we are mortal: our bodies are *designed* to wear out and die. "As it is appointed for men to die once, but after this the judgment, so Christ was offered once to bear the sins of many. To those who eagerly wait for Him He will appear a second time, apart from sin, for salvation." (Hebrews 9:27-28) That's God's pattern: mortal life in which our sins and choices are made, then physical death, then something beyond death. Ideally, that "something" is "eternal life," not as a mortal being, but as a transformed *immortal* creature inhabiting a spiritual body free from sin. Paul described it: "So also is the resurrection of the dead. The body is

sown in corruption, it is raised in incorruption. It is sown in dishonor, it is raised in glory. It is sown in weakness, it is raised in power. It is sown a natural body, it is raised a spiritual body. There is a natural body, and there is a spiritual body.... The spiritual is not first, but the natural, and afterward the spiritual." The natural/physical body must come first, of course, because that is the vehicle in which we must choose whether or not we wish to have a spiritual existence at all. Some of us do, but a surprisingly large number of us do not—not if it means having to having to share a relationship with God. "The first man [Adam] was of the earth, made of dust; the second Man [Yahshua] is the Lord from heaven. As was the man of dust, so also are those who are made of dust; and as is the heavenly Man, so also are those to] shall also bear the image of the heavenly Man." (I Corinthians 15:42-44, 46-49)

The transhumanists, on the other hand, dream of becoming "like gods," living forever (more or less) *in their mortal bodies*. So there is a fundamental disagreement as to what "eternal life" means. To the transhumanist, it's restoration and enhancement of what's already there; to the Christian, it's total transformation. One might think of it this way: the transhumanist dreams of taking his 1967 Shelby Mustang and completely restoring it from the ground up—making it like new, or even better than new. The Christian, meanwhile, admits that all he's got to work with is a '75 Ford Pinto with 287,000 miles on it and a bum second gear. He's looking forward to *trading it in*—on a time machine.

More to the point, the typical transhumanist would be horrified at the baggage that comes with God's definition of eternal life. You can't have it without Christ. Paul wrote of "the truth which accords with godliness, in hope of eternal life which God, who cannot lie, promised before time began." (Titus 1:1-2) John says, "This is the promise that He has promised us—eternal life.... This is the testimony: that God has given us eternal life, and this life is in His Son. He who has the Son has life; he who does not have the Son of God does not have life." (I John 2:25, 5:11-12) Yahshua Himself prayed, "You have given Me authority over all flesh, that I should give eternal life to as many as You have given Me. And this is eternal life, that they may know You, the only true God, and Jesus Christ whom You have sent." (John 17:2-3) *That* is the "image of the heavenly man" about which Paul spoke in I Corinthians 15. But the transhumanist wants to keep his sin while leaving its inevitable corruption behind.

Anyway, Snyder continues: "The key moment that most transhumanists are looking forward to is known as 'the Singularity.' That is the moment [as we saw in the previous section] when artificial intelligence will actually surpass human intelligence and a massive technological chain reaction will be triggered. At that time, most transhumanists believe that biological intelligence will merge with non-biological intelligence and humanity will become vastly more intelligent than it is today. During this transition, society will be fundamentally transformed...." What they have apparently missed is that there is no correlation whatsoever between intelligence and goodness. A smart criminal (or terrorist) is far more dangerous than a stupid one.

"After the Singularity occurs, it is predicted that vast changes will sweep through society; changes so drastic that they are nearly inconceivable at the present time. Experts in the movement say that after the Singularity, indefinite human life extension will rapidly become the norm. Many scientists working in this field are particularly interested in the concept of achieving immortality." As a reference point, the oldest human in the historical record was Methuselah, stated in Genesis 5:7 to have lived 969 years—in an environment (according to the scriptural clues) of clean air and water, a nutritious vegetarian diet, no harmful cosmic or UV rays to worry about, and a pristine gene pool (excuse the *Nephilim*). As long as that is, it still falls far short of immortality.

"To most people, the idea of achieving immortality in our decaying physical bodies would sound absolutely ridiculous. But transhumanists are very serious about this. One way they are seeking to accomplish this is by searching for a method that will enable them to store the human mind on a computer. If your entire consciousness could be "uploaded" into a computer, it could conceivably later be downloaded into a futuristic avatar of some sort once that technology has been developed.

"But that is not the only life extension technology that transhumanists are working on. Some other examples include embedding nanobots in our bodies and brains and eliminating diseases through the process of 'genetic reprogramming.' Other futurists and transhumanists are working toward improving longevity through more biological means, such as growing new organs from stems cells, replacing worn out parts of the body with high-tech updated models, and curing diseases through genetic reprogramming. A third method of achieving a transhuman state of being may come through merging the biological and nonbiological in equal measure, such as embedding nano robots into the bloodstream and brain; and replacing atoms with nano computers to solve the degeneration that comes with aging."

Okay, so let's say, for the sake of argument, that the transhumanists' dreams are realized, and they figure out how to stop the aging process and enhance human capability a hundred fold. What then? Snyder asks, "Could it be that we've been tricked into pouring our innovative energy into making ourselves better *slaves*? If the digital elite achieves its dream of a perfect union with machines, what becomes of the rest of us who either can't afford cyborgification or who actually enjoy life as a regular human being? Would one Singularitized human be expected to handle the workload of 100 unenhanced workers? Robots will have of course taken the rest of the jobs....

"Most transhumanists concede that there will be bumps on the road to utopia, but they argue that it would be foolish not to 'take control of our own evolution.' They believe that we can use science and technology to guide the evolution of society and that this will create a far better world than we have today. After all, who wouldn't want to live in a 'utopia' where everything that is currently wrong with our planet has been 'fixed'?

"But transhumanists don't just stop there. They believe that eventually we will possess such superhuman powers and will enjoy such radical life extension technologies that we will essentially be like God." Apparently, their idea of what "God" is falls somewhat short of reality. There's far more to Him than longevity, or even personal power. "The most famous transhumanist on the globe, Ray Kurzweil, takes 150 vitamin supplements a day in an attempt to extend his life until more advanced life extension technologies can be developed. In chapter 7 of 'The Singularity Is Near: When Humans Transcend Biology,' he expresses his belief that evolution and technology are systematically moving us in the direction of becoming more like God: 'Evolution moves toward greater complexity, greater elegance, greater knowledge, greater intelligence, greater beauty, greater creativity, and greater levels of subtle attributes such as love." Really? You need to get out more, Ray. The *reality* of evolution is nothing like that. Life on this planet is *devolving*. Hatred and deceit rule our world. People who believe in "survival of the fittest" do not love each other: they compete for limited and dwindling resources. And truth be told, most technology (though spiritually neutral in itself) has been dedicated to the bondage or destruction of mankind.

Nevertheless, Kurzweil's hopeful hallucination continues: "In every monotheistic tradition God is likewise described as all of these qualities, only without any limitation: infinite knowledge, infinite intelligence, infinite beauty, infinite creativity, infinite love, and so on. Of course, even the accelerating growth of evolution never achieves an infinite level, but as it explodes exponentially it certainly moves rapidly in that direction. So evolution moves inexorably toward this conception of God, although never quite reaching this ideal. We can regard, therefore, the freeing of our thinking from the severe limitations of its biological form to be an essentially spiritual undertaking." Wow. Somebody's been drinking his own Kool-Aid—spiked with self-delusion. This is about as far out of touch with reality as one can get. Kurzweil doesn't seem to see the ironic and fundamental dichotomy between an "exponentially advancing evolution" and the dire need for the transhumanist tool kit, because the human genome is deteriorating so fast we may not even *survive* as a species for another fifteen or twenty generations without it. Oh, and by the way, the only "monotheistic tradition" that describes God the way he does here is Judeo-Christianity. Islam's god is the antithesis of knowledge, intelligence, beauty, creativity, and love.

Snyder concludes: "Transhumanist Mark Pesce is even more extreme. He openly states that he believes that transhumanism will allow us 'to become as gods.' 'Men die, planets die, even stars die. We know all this. Because we know it, we seek something more-a transcendence of transience, translation to incorruptible form. An escape if you will, a stop to the wheel. We seek, therefore, to bless ourselves with perfect knowledge and perfect will; to become as gods, take the universe in hand, and transform it in our image—for our own delight. As it is on Earth, so it shall be in the heavens. The inevitable result of incredible improbability, the arrow of evolution is lipping us into the transhuman—an apotheosis to reason, salvation-attained by good works." Just because it's couched in poetic language, don't mistake this for sane or rational thought. Salvation has *never* been attainable through good works, nor is reason a reasonable soteriological strategy. No, this is basically the same thing Lucifer said: "I will ascend above the heights of the clouds; I will be like the Most High." To which God replied, "Yet you shall be brought down to Sheol, to the lowest depths of the **Pit.**" (Isaiah 13: 14-15)

"And what transhumanist Dr. Richard Seed has to say about all of this is quite frightening. He says, 'We are going to become gods. Period. If you don't like it, get off. You don't have to contribute; you don't have to participate. But if you're going to interfere with *me* becoming god, we're going to have big trouble.""

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What, specifically, does transhumanism promise? What comprises the transhumanist tool kit? The "mad scientists" are working on a plethora of techniques as we speak. Kevin Loria, in an article published on *ProphecyNewsWatch.com* (May 19, 2014), describes the "promise" of one such area of study: brain implants.

Loria writes, "A tiny computer chip surgically embedded in your brain could give you superpowers. It sounds crazy, but scientists already use these devices to restore sight for some blind people and hearing for the deaf. In the future these implants, also known as neuroprosthetics, will be able to do much more sometimes with the help of super-sensitive eye or ear implants. By using electronic signals to stimulate parts of the brain, these chips can now deliver visual and auditory signals and restore connections that have been severed by trauma. Once our understanding of the brain has improved, researchers think it will be possible to deliver more data to the mind.

"It's currently risky to drill into the skull and put a small electronic device in there, but the technology is rapidly advancing. Soon, things we consider superpowers will be readily available to anyone who wants them—and can afford it. Here are some of the things that brain implants will make possible....

"1. Hear a conversation from across a room, or in a crowded club... Already, cochlear implants can restore hearing for some people, and even allow them to hear for the first time. With the help of specialized hardware, they could tune out what you don't want to hear, or use sensitive equipment to pick up far-off soundwaves." To my mind, restoring damaged auditory capacity is one thing—a good thing; but enhancing it beyond what God saw fit to give us in the first place is an invitation to psychosis. And making enhanced hearing capacity dependent on control through external equipment seems a recipe for disaster.

"2. Give you the ability to see in the dark... FDA-approved retinal implants can restore the ability to see motion and shapes for people blinded by a certain genetic condition already. As understanding of the ocular nerve improves, better versions of these implants could give you the night vision of a cat." Again, restoration of God's gifts we've lost would be wonderful. I would love to have the vision I had as a twenty year old again. But wishing for what God didn't see fit to give in the first place us is stupid.

"3. Give you sight that can zoom in on things that are far away. Researchers have already developed contacts that can zoom. But a retinal prosthetic that could do the same thing should make it possible to do this all the time." Ditto: see #2.

"4. Make you better at maths and navigation... Directly stimulating areas of the brain can already boost people's mathematical and navigational abilities in a lab setting. With a brain implant that did this all the time, it'd be a lot harder to pull the 'I'm just not a maths person' excuse anymore." Mental acuity is great, and I'm pretty sure our brains are capable of a lot more than we ask of them. But I'm not so sure about the wisdom of *artificially* achieving what we were intended to gain through experience and effort. *My* experience tells me to be suspicious of short cuts that seem too good to be true.

"5. Allow you to download skills like in 'The Matrix...' Researchers claim that once we understand how practicing a skill transforms the brain over time, we might be able to use implants to cause those same transformations to occur, providing the motor memory for kung-fu skills, or whatever else you want to learn." Breaking a board in half like a kung-fu master without *physical* training is a good way to break every bone in your hand. Motor memory involves a lot more that what's going on in your mind. As I used to tell my guitar students, "There is no substitute for spending *time* (and lots of it) playing your instrument. There's more to it than learning rote musical facts, or establishing synaptic pathways. Your muscles, tendons, and even your skin (especially your fingertips) have to develop along with your brain." "6. Restore damaged memories... The military's Defense Advanced Research Projects Agency is already experimenting with brain implants that will help soldiers suffering from traumatic brain injuries by using electrodes to stimulate damaged tissue. In the future, this could be a valuable medical technology." This one I heartily agree with, but of course, DARPA doesn't know how to leave well enough alone. Read on...

"7. Cure depression and control mood... DARPA is also working on neuroprosthetics that could cure depression and PTSD. This is similar to recent research showing how Transcranial Magnetic Stimulation might be an extremely effective antidepressant. Future implants could regulate the brain and make sure it keeps working the way it should, providing stimulation when necessary." I'm the first to admit that I don't know much about clinical depression. But once again, experience tells me to be wary of "instant, magic-pill" cures to ailments that are both environmental and *spiritual* in nature. And then there's the problem of letting a godless government define "how the brain should work." In some circles, we are very close to seeing Fundamental Christianity (or even Constitutional patriotism, for that matter) labelled a "mental illness."

"8. Enhance focus and energy, like stimulants without the drugs... Drugs like Adderall and Ritalin are well known for their alertness-boosting abilities, but also for their serious side effects. Brain stimulation could both enhance focus and mental clarity, but without the jittery, speedy, up-all-night feelings—and the postamphetamine crash." Our mortal bodies need rest, nutrition, and frankly, a clear conscience, if they are to function the way they should. Using mental implants to simulate the effects of pharmaceutical stimulants without recourse to chemistry misses the point. It may make us more productive as slaves, but it has the potential to destroy us as human beings. And consider this: if you can implant electronic "Ritalin" into your brain, what's to keep some enterprising transhumanist criminal from coming up with chemical-free cocaine or heroin?

"9. Control machines with your mind... Researchers have already used a neuroprosthetic sensor to control a robotic arm. As this technology is refined, that control will only become more accurate, allowing for remote control of robots, computers, and more." Our brains were designed to (among other things) control our bodies' motor functions via electrical impulses transmitted by our nervous systems—so this isn't much of a stretch. The danger comes when we begin to think of the machines we're controlling as "part of us," rather than a mere tool. And taking human nature down the road another couple of decades, what would prevent the mad scientists from *reversing* the process and making *our bodies* the tools—operated remotely by someone else?

"10. Search the web and translate languages... Once these implants can transmit and receive information, it should be possible to think of a topic—or look

at a tree or painting—and send that information to the web, and have relevant results fed back into your brain. This technology is still far away, and will depend on smaller and biologically safer computer chips, as well as better brain maps. But once that's possible, it will have even greater implications. Imagine being able to travel anywhere in the world and being able to understand what's being said. The same technology that transmits auditory information could potentially feed that data through a translating service and interpret it for you in real time, like your very own Babel fish [a literary reference to *The Hitchhiker's Guide to the Galaxy*]." There is a *reason* God confused the world's languages at the tower of Babel (Genesis 11:9). Something tells me there's also a reason He never reversed the process. The whole point was to impede the spread of wickedness in the world. (That being said, it is my guess that during the Millennial kingdom, we'll all be speaking Hebrew.)

Even mainstream news sources are beginning to pick up on the coming transhumanist revolution. The *Wall Street Journal* (March 14, 2014) ran an article entitled "The Future of Brain Implants," by By Dr. Gary Marcus (professor of psychology at New York University) and Dr. Christof Koch (chief scientific officer of the Allen Institute for Brain Science in Seattle).

They ask, "How soon can we expect to see brain implants for perfect memory, enhanced vision, hypernormal focus or an expert golf swing? What would you give for a retinal chip that let you see in the dark or for a next-generation cochlear implant that let you hear any conversation in a noisy restaurant, no matter how loud? Or for a memory chip, wired directly into your brain's hippocampus, that gave you perfect recall of everything you read? Or for an implanted interface with the Internet that automatically translated a clearly articulated silent thought (e.g. 'the French sun king') into an online search that digested the relevant Wikipedia page and projected a summary directly into your brain?" Off hand, I can think of about a thousand reasons why this sort of thing would be a really bad idea, but for now, I'll hold my tongue.

"Science fiction? Perhaps not for very much longer. Brain implants today are where laser eye surgery was several decades ago. They are not risk-free and make sense only for a narrowly defined set of patients—but they are a sign of things to come. Unlike pacemakers, dental crowns or implantable insulin pumps, neuroprosthetics—devices that restore or supplement the mind's capacities with electronics inserted directly into the nervous system—change how we perceive the world and move through it. For better or worse, these devices become part of who we are." That, in a nutshell, is the very definition of "transhumanism."

"Neuroprosthetics aren't new. They have been around commercially for three decades, in the form of the cochlear implants used in the ears (the outer reaches of the nervous system) of more than 300,000 hearing-impaired people around the

world. Last year, the Food and Drug Administration approved the first retinal implant, made by the company Second Sight. Both technologies exploit the same principle: An external device, either a microphone or a video camera, captures sounds or images and processes them, using the results to drive a set of electrodes that stimulate either the auditory or the optic nerve, approximating the naturally occurring output from the ear or the eye.

"Another type of now-common implant, used by thousands of Parkinson's patients around the world, sends electrical pulses deep into the brain proper, activating some of the pathways involved in motor control. A thin electrode is inserted into the brain through a small opening in the skull; it is connected by a wire that runs to a battery pack underneath the skin. The effect is to reduce or even eliminate the tremors and rigid movement that are such prominent symptoms of Parkinson's (though, unfortunately, the device doesn't halt the progression of the disease itself). Experimental trials are now under way to test the efficacy of such 'deep brain stimulation' for treating other disorders as well. Electrical stimulation can also improve some forms of memory....

"But not all brain implants work by directly stimulating the brain. Some work instead by reading the brain's signals—to interpret, for example, the *intentions* of a paralyzed user. Eventually, neuroprosthetic systems might try to do both, reading a user's desires, performing an action like a Web search and then sending the results directly back to the brain." As usual, I would draw the line in the sand between restoring God-given functionality that had been lost, and proceeding beyond what we had in the first place—before the illness or injury became a factor. If my body acted out every impulse that flashed through my unruly brain, I'd be in deep trouble. There's a fine line between intention (i.e., volition) and succumbing to temptation.

"How close are we to having such wondrous devices? To begin with, scientists, doctors and engineers need to figure out safer and more reliable ways of inserting probes into people's brains." Actually, I'd work out the whole ethics thing first, but that's just me. "For now, the only option is to drill small burr-holes through the skull and to insert long, thin electrodes—like pencil leads—until they reach their destinations deep inside the brain. This risks infection, since the wires extend through the skin, and bleeding inside the brain, which could be devastating or even fatal.

"External devices, like the brainwave-reading skull cap made by the company NeuroSky (marketed to the public as 'having applications for wellness, education and entertainment'), have none of these risks." No, they have all *different* risks. Remember the 1983 sci-fi thriller *Brainstorm*? "But because their sensors are so far removed from individual neurons, they are also far less effective.... Today, effective brain-machine interfaces have to be wired directly into the brain to pick up the signals emanating from small groups of nerve cells. But nobody yet knows how to make devices that listen to the same nerve cells that long. Part of the problem is mechanical: The brain sloshes around inside the skull every time you move, and an implant that slips by a millimeter may become ineffective.

"Another part of the problem is biological: The implant must be nontoxic and biocompatible so as not to provoke an immune reaction. It also must be small enough to be totally enclosed within the skull and energy-efficient enough that it can be recharged through induction coils placed on the scalp at night (as with the recharging stands now used for some electric toothbrushes). These obstacles may seem daunting, but many of them look suspiciously like the ones that cellphone manufacturers faced two decades ago, when cellphones were still the size of shoeboxes. Neural implants will require even greater advances since there is no easy way to upgrade them once they are implanted and the skull is sealed back up.

"But plenty of clever young neuro-engineers are trying to surmount these problems, like Michel Maharbiz and Jose Carmena and their colleagues at the University of California, Berkeley. They are developing a wireless brain interface that they call 'neural dust.' Thousands of biologically neutral microsensors, on the order of one-tenth of a millimeter (approximately the thickness of a human hair), would convert electrical signals into ultrasound that could be read outside the brain."

Michael Snyder's take on Ultrasonic Neural Dust (TheTruthWins.com, July 22, 2013) is that "The advances in the field of nanotechnology that we have seen over the past decade have been absolutely mind blowing. Now, some scientists are talking about actually being able to put thousands of tiny little computer chips inside our heads. The following is from a recent *Time Magazine* article.... 'Here's how it might work: First you pop through the skull and the brain's dura (the membrane surrounding the brain), dipping into the brain's neural sea itself, roughly two millimeters down, where you position thousands of low-powered CMOS chips (the "neural dust," each as tiny as millionths of a meter) to begin capturing neural signals using electrodes and piezoelectric sensors, which convert the data to ultrasonic signals. Those signals are then picked up by a sub-dural transceiver (sitting just above the "dust" chips and simultaneously powering them ultrasonically), which relays the data to an external transceiver resting just outside the skull (ASIC, memory, battery, long-range transmitter), which in turn communicates wirelessly with a computing device.' Like most futurist notions, this one hasn't been tested yet-it's just a formal proposal-but it's another fascinating glimpse into where we might be headed, bypassing clumsy literal BMI head-jacks for micro-scale interfaces that would link us, wire-free, to future galaxies of virtual information."

Marcus and Koch continue: "The real question isn't so much whether something like this *can* be done but how and when." Actually, the question in my mind is, "*Should* these things be done at all, and *why*?" The scientists never seem to have a feel for when to stop. "How many advances in material science, battery chemistry, molecular biology, tissue engineering and neuroscience will we need? Will those advances take one decade, two decades, three or more? As Dr. Maharbiz says, once implants 'can be made lifetime stable for healthy adults, many severe disabilities will likely be chronically treatable.' For millions of patients, neural implants could be absolutely transformative."

For these medical purposes, I applaud the efforts being made. But scripture strongly implies that such technological heroics will not be necessary during the kingdom age (coming very soon, unless I'm mistaken about a great many things). As long as the Millennial mortals honor the King, the plagues we suffer in this corrupt world will not trouble them. The *last* thing they'll need is biomechanical assistance just to function like a normal human being. In fact, the description of the "New Jerusalem" (in the very last chapter of the Bible) strongly suggests that *nutrition* will play a central role in the wellness of mankind: "And he showed me a pure river of water of life, clear as crystal, proceeding from the throne of God and of the Lamb. In the middle of its street, and on either side of the river, was the tree of life, which bore twelve fruits, each tree yielding its fruit every month. The leaves of the tree were for the healing of the nations." (Revelation 22:1-2) It's hard to be dogmatic, however, because the eternal state is in view in this passage: it can't be stated with certainty *when* these blessings will begin. But a clearly Millennial passage (Ezekiel 47:12) describes something very similar—in an earthly context.

Anyway, Marcus and Koch tell us where we seem to be headed: "Assuming that we're able to clear these bioengineering barriers, the next challenge will be to interpret the complex information from the 100 billion tiny nerve cells that make up the brain. We are already able to do this in limited ways. Based on decades of prior research in nonhuman primates, John Donoghue of Brown University and his colleagues created a system called BrainGate that allows fully paralyzed patients to control devices with their thoughts. BrainGate works by inserting a small chip, studded with about 100 needlelike wires—a high-tech brush—into the part of the neocortex controlling movement. These motor signals are fed to an external computer that decodes them and passes them along to external robotic devices....

"In truth, we have no idea at present how the human brain does some of its most basic feats, like translating a vague desire to return that tennis ball into the torrent of tightly choreographed commands that smoothly execute the action. No serious neuroscientist could claim to have a commercially ready brain-reading device with a fraction of the precision or responsiveness of a computer keyboard...."

Scientists are becoming aware that the functions they wish to control happen not at the microscopic scale, but at the *molecular* level. "The coarse-grained functional MRI brain images that have become so popular in recent years won't be enough. For one thing, they are indirect; they measure changes not in electrical activity but in local blood flow, which is at best an imperfect stand-in. Images from fMRIs also lack sufficient resolution to give us true mastery of the neural code. Each three-dimensional pixel (or 'voxel') in a brain scan contains a halfmillion to one million neurons. What we really need is to be able to zero in on *individual* neurons.

"Zooming in further is crucial because the atoms of perception, memory and consciousness aren't brain regions but neurons and even finer-grained elements. Chemists turned chemistry into a quantitative science once they realized that chemical reactions are (almost) all about electrons making and breaking bonds among atoms. Neuroscientists are trying to do the same thing for the brain. Until we do, brain implants will be working only on the logic of forests, without sufficient understanding of the individual trees."

Although the initial research is being done with the best of intentions—the desire to help people recover brain function lost through trauma or illness—it won't end there: "Eventually neural implants will make the transition from being used exclusively for severe problems such as paralysis, blindness or amnesia. They will be adopted by people with less traumatic disabilities. When the technology has advanced enough, implants will graduate from being strictly repair-oriented to enhancing the performance of healthy or 'normal' people. They will be used to improve memory, mental focus (Ritalin without the side effects), perception and mood (bye, bye Prozac)." Of course, big pharma won't surrender its customer base without a fight. There are billions of dollars at stake here.

"Many people will resist the first generation of elective implants. There will be failures and, as with many advances in medicine, there will be deaths. But anybody who thinks that the products won't sell is naive. Even now, some parents are willing to let their children take Adderall before a big exam. The chance to make a 'superchild' (or at least one guaranteed to stay calm and attentive for hours on end during a big exam) will be too tempting for many.

"Even if parents don't invest in brain implants, the military will. A continuing program at DARPA, a Pentagon agency that invests in cutting-edge technology, is already supporting work on brain implants that improve memory to help soldiers injured in war. Who could blame a general for wanting a soldier with hypernormal focus, a perfect memory for maps and no need to sleep for days on end? (Of course, spies might well also try to eavesdrop on such a soldier's brain, and hackers might want to hijack it. Security will be paramount, encryption *de rigueur*.)" The military establishment will always be the first to throw caution to the wind when they smell an opportunity for strategic battlespace advantage. There's something very wrong when soldiers are viewed less as skilled and patriotic human beings and more as equipment to be deployed.

It won't be long before brain implant technology will be applied in, shall we say, "less than essential" pursuits: "An early generation of enhancement implants might help elite golfers improve their swing by automating their mental practice. A later generation might allow weekend golfers to skip practice altogether. Once neuroscientists figure out how to reverse-engineer the end results of practice, 'neurocompilers' might be able to install the results of a year's worth of training directly into the brain, all in one go...." One wonders whether these transhumanist techniques will someday be viewed as "cheating," as when an athlete uses steroids or other performance enhancing drugs today. Will it be seen as "taking unfair advantage," or will it become so commonplace the liberal progressives will begin to consider access to performance boosting brain implants a "right" that must be provided free of charge to underprivileged school children?

The future as Marcus and Koch envision it is thus: "The augmented among us—those who are willing to avail themselves of the benefits of brain prosthetics and to live with the attendant risks—will outperform others in the everyday contest for jobs and mates, in science, on the athletic field and in armed conflict. These differences will challenge society in new ways—and open up possibilities that we can scarcely imagine."

To label this whole pursuit as naïve would be putting it mildly. If history has taught us anything, it is that new technologies like this will be usurped at the earliest possible opportunity by several special interest groups. (1) The military (or "intelligence" agencies) will try to create super soldiers who can outperform their human adversaries, physically and mentally. (2) Well-funded criminals— thieves, hackers, drug lords, terrorists, etc.—will adapt the new technology to their own evil ends. (3) Somebody will figure out how to use transhumanism to pervert the human sex drive. I can't imagine what they might offer, but I can practically guarantee that if these technologies are allowed to develop (that is, if I am wrong about the soon return of our Messiah-King), future cyber-pimps will figure out how to make a buck out of this—and in the process further degrade God's gift of pleasure and procreation that was designed to be enjoyed only within the bonds of holy matrimony.

Don't look now, but the *nephilim* are back—or soon will be if these things are allowed to run their course. The "augmented among us" (as Marcus and Koch put it), these brain-enhanced transhumans, will fill the role of the "giants in the land" with whom Noah dealt—and, not coincidentally, *whom the flood was sent to wipe*  *out*. What was it Yahshua gave as the sign of His impending coming—and specifically, as a harbinger of the rapture of the church? **"As the days of Noah were, so also will the coming of the Son of Man be."** (Matthew 24:37)

#### Are you awake yet?

A piece published in the *Huffington Post* (June 6, 2013) by Tanya Lewis reports on conference held in New York discussing transhumanist issues. The article, entitled "Mind Uploading & Digital Immortality May Be Reality By 2045, Futurists Say," concentrates on the so-called "brain-computer interface," or BCI—the concept of enhancing the brain's capabilities through the use of computers (not those available to us today, of course, but the billion-times-better models envisioned for the not-so-distant future).

Lewis says, "Substantial achievements have been made in the field of braincomputer interfaces, or BCIs (also called brain-machine interfaces). The cochlear implant—in which the brain's cochlear nerve is electronically stimulated to restore a sense of sound to someone who is hard of hearing—was the first true BCI. Many groups are now developing BCIs to restore motor skills, following damage to the nervous system from a stroke or spinal cord injury...." As usual, the mad scientists begin well, but they don't know when (or how) to stop.

"Theodore Berger, a neural engineer at the University of Southern California in Los Angeles, is taking BCIs to a new level by developing a memory prosthesis. Berger aims to replace part of the brain's hippocampus, the region that converts short-term memories into long-term ones, with a BCI. The device records the electrical activity that encodes a simple short-term memory (such as pushing a button) and converts it to a digital signal. That signal is passed into a computer where it is mathematically transformed and then fed back into the brain, where it gets sealed in as a long-term memory. He has successfully tested the device in rats and monkeys, and is now working with human patients." This, of course, could be a great blessing to the handful of people who have impaired short-term memory issues due to stroke or trauma. But something tells me Berger and his colleagues have no intention of stopping there. Could it be that they are trying to engineer a "photographic memory?" I would caution that there is a *reason* our Creator designed some mental processes to be transitory and fleeting. Some of life's experiences are best forgotten—quickly.

"The conference took a surreal turn when Martine Rothblatt—a lawyer, author, and entrepreneur, and CEO of biotech company United Therapeutics Corp.—took the stage. Even the title of Rothblatt's talk was provocative: 'The Purpose of Biotechnology is *the End of Death*.' Rothblatt introduced the concept of 'mindclones'—digital versions of humans that can live forever." *Really*? Gee, I wonder if they're going to be using CD-ROMs or 3<sup>1</sup>/<sub>2</sub> inch floppy disks. "Forever" is about a year and a half in the digital age. "She described how the mind clones are created from a 'mindfile,' a sort of online repository of our personalities, which she argued humans already have (in the form of Facebook, for example). This mindfile would be run on 'mindware,' a kind of software for consciousness. 'The first company that develops mindware will have [as much success as] a thousand Googles,' Rothblatt said.

"But would such a mindclone be *alive*? Rothblatt thinks so. She cited one definition of life as a self-replicating code that maintains itself against disorder. Some critics have shunned what Rothblatt called 'spooky Cartesian dualism,' arguing that the mind must be embedded in biology. On the contrary, software and hardware are as good as wet ware, or biological materials, she argued. Rothblatt went on to discuss the implications of creating mindclones. Continuity of the self is one issue, because your persona would no longer inhabit just a biological body. Then, there are mind-clone civil rights, which would be the 'cause célèbre' for the 21st century, Rothblatt said. Even mindclone procreation and reanimation after death were mentioned."

I can just imagine Yahweh patting these guys on the head as if they were idiot children hopefully comparing their stick figure crayon drawings to masterpieces by Leonardo or Michelangelo. First, their use of hardware and software to try to replicate God's "wetware," as Rothblatt calls it, falls woefully short of the goal. The mortal human body is *so* advanced—right down to the cellular (actually, *molecular*) level—it will be a miracle if the scientists ever come within orders of magnitude of replicating its actual functionality. And even if they could, it would merely prove that an Intelligent Designer *was* required, once again disproving the theory of undirected organic evolution. It's a catch-22 scenario: an Intelligent Designer is required, but if a Creator God actually exists, then none of these transhumanist self-evolution efforts are necessary or appropriate.

But a careful reading of scripture reveals that God Himself considers our mortal bodies merely a rough sketch (*His own* "stick figure crayon drawing," if you will) of what He has planned for us for the long haul—the eternal state. While the mad scientists are scrambling to replicate the existing human brain, God has already designed the ultimate upgrade—from temporary physical existence to eternal spiritual reality. And He has even arranged to transfer our *minds*—that which makes us unique individuals—from our old bodies to the new ones. God's idea of "mindcloning" and "mindware" are so far beyond what the mad-scientist "visionaries" have imagined, it isn't even funny. Yahweh isn't waiting for Moore's Law to catch up with his aspirations, either: His "technology" has been complete and perfect since before Creation. His "prototype" was unveiled a long time ago: on Sunday, April 3 (Nisan 16 on the Hebrew calendar), 33AD, to be precise.

All four Gospel writers recorded the "rollout" of Human 2.0: "Now on the first day of the week, very early in the morning, they [the Galilean women], and certain other women with them, came to the tomb [of Yahshua] bringing the spices which they had prepared. But they found the stone rolled away from the tomb. Then they went in and did not find the body of the Lord Jesus. And it happened, as they were greatly perplexed about this, that behold, two men stood by them in shining garments. Then, as they were afraid and bowed their faces to the earth, they said to them, 'Why do you seek the living among the dead? He is not here, but is risen! Remember how He spoke to you when He was still in Galilee, saying, "The Son of Man must be delivered into the hands of sinful men, and be crucified, and the third day rise again." And they remembered His words." (Luke 24:1-8)

Yahshua, who had definitely been dead the day before, then proceeded to prove that He was indeed "risen" (and not merely *gone*) by showing Himself *alive*—bodily and physically—to over five hundred of His followers over the next forty days, having conversations with them, appearing spontaneously in locked rooms, disappearing from view just as suddenly, "teleporting" instantaneously from one place to another, and finally ascending into the heavens (without the benefit of manmade machinery) in the full view of His assembled guests. There was no doubt among the witnesses that Christ's mind—His *nephesh*, or soul, that which made Him *him*—was the same person they had known and walked with for years. There was continuity and remembrance (much to Peter's chagrin), but also an earnest desire to communicate the reality of His new immortal paradigm—for we were destined to share in it, if we were in Him.

The transhumanists speak of "downloading" the mind's data into a computer, something they call "mindcloning,' and then they argue over whether or not such a thing might be alive. But Yahshua's very soul-the thing that makes one's body alive (something today's scientists still don't understand)-had been transferred intact into a whole new kind of body, one with capabilities far beyond what His mortal frame had possessed. Paul explains, sort of: "But now Christ is risen from the dead, and has become the firstfruits of those who have fallen asleep. For since by man came death, by Man also came the resurrection of the dead. For as in Adam all die, even so in Christ all shall be made alive. But each one in his own order: Christ the firstfruits, afterward those who are Christ's at His coming." (I Corinthians 15:20-23) Twice here, Paul alludes to something called "firstfruits." It is no coincidence that Yahshua's resurrection took place on the very day (Nisan 16) of the Torah's third mandated convocation, the "Feast of Firstfruits," which coincided with the second day of the week-long Feast of Unleavened Bread, which in turn was designated in the Torah as a celebration of God's process of ridding our lives of the corruption of death (symbolized by leaven or yeast)-forever.

So Christ received a new body in which to host His *nephesh*, or soul. This is a far cry from the transhumanists' pitiful dream of building a computer

sophisticated enough to think as fast as the human brain, or implanting electronic devices in our brains to enhance our natural abilities. A passage I quoted above bears repeating, for in it Paul tries to explain what this new "spiritual body" is like—which is not to say any of us are fully equipped to comprehend how wonderful it will be: "But someone will say, 'How are the dead raised up? And with what body do they come?'... The body is sown in corruption, it is raised in incorruption. It is sown in dishonor, it is raised in glory. It is sown in weakness, it is raised in power. It is sown a natural body, it is raised a spiritual body. There is a natural body, and there is a spiritual body.... However, the spiritual is not first, but the natural, and afterward the spiritual. The first man was of the earth, made of dust; the second Man is the Lord from heaven. As was the man of dust, so also are those who are made of dust; and as is the heavenly Man, so also are those who are heavenly. And as we have borne the image of the man of dust, we shall also bear the image of the heavenly Man." (I Corinthians 15:35, 42-44, 46-49)

The best part? Yahweh intends to use His proprietary "mindware" to permanently delete all the corrupt files from the spiritual "mindclones" (our souls) that He will "download" into our new spiritual bodies on rapture day. And when the Kingdom age is complete, *this* will be our new reality: **"Behold**, the tabernacle of God is with men, and He will dwell with them, and they shall be His people. God Himself will be with them and be their God. And God will wipe away every tear from their eyes; there shall be no more death, nor sorrow, nor crying. There shall be no more pain, for the former things have passed away." (Revelation 21:3-4) Even the most ambitious transhumanist pipedream can't touch that.

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As a practical matter, much of the effort in transhumanist science these days has to do with repairing dysfunctional human anatomy. For example, subdermal computer chips, smart tattoos, or computerized pills ("swallowed monitors") are being touted as diagnostic tools, transmitting a person's vital signs or medical condition wirelessly—useful for tracking the medical status of athletes, pregnant women, or the elderly, especially patients with such conditions as Parkinson's or Alzheimer's disease. Nanotechnology is being developed that can fight cancers or deliver medication. Artificial muscles made from nanotech yarns may soon be able to restore lost functionality. Implants have been deployed to help the blind see and the deaf to hear. Neuroscientists at MIT are looking for ways to reverse bad memories by "switching off" the link between memories and the resulting fear or anxiety attached to stressful events in the past—a potential breakthrough in the treatment of post-traumatic stress disorder. In Britain, scientists have created genetically-engineered mice with artificial human chromosomes in every cell of their bodies, hoping to treat genetic diseases with a radically new form of gene therapy. Google has revealed a radical smart contact lens for diabetics, monitoring their tears and warning them if glucose levels drop. Exoskeletons are being developed to help the elderly and disabled to walk. Smart prosthetic limbs will give amputees mobility and dexterity they never dreamed possible. All good things, as far as I can tell.

But consider this: the first book ever printed with movable type was a Bible, published by Johannes Gutenberg in 1455. As far as I can tell, it was all downhill from there: in case you haven't noticed, the art and science of printing is no longer wholly dedicated to the dissemination of the truth. At the same time, printing technology has advanced far beyond what Gutenberg ever could have conceived of. In fact, for most of us, the "printed page" isn't even a sheet of paper with ink on it anymore necessarily, but as often as not, an electronic device projecting pixels of light. My point is that technology doesn't stay put. In particular, *nobody* expects transhumanism to be restricted forever to "fixing what's broken" about the human body. Not content with the prospect of "becoming gods" (in the sense of living extremely long lives or having superhuman skills), the mad scientists dabbling in transhuman tech now want to "play god" by manipulating the very source code of life.

For example, an article by Alan Mozes, a reporter for *HealthDay* (picked up by *USNews.com*, May 7, 2014) states that "Researchers from The Scripps Research Institute (TSRI) in La Jolla, Calif., have created a brand-new bacteria based on a genetic structure found nowhere on Earth. According to lead researcher Floyd Romesberg, the feat involved artificially engineering a unique combination of DNA material—a combination not found in any living creature—and then successfully inserting it into a living cell that usually contains only natural combinations of DNA.

"'Life on Earth in all its diversity is encoded by only two pairs of DNA bases, A-T and C-G,' Romesberg explained in an institute news release. 'And what we've made is an organism that stably contains those two plus a third, unnatural pair of bases.... This shows that other solutions to storing [genetic] information are possible,' he added, 'and, of course, takes us closer to an expanded-DNA biology that will have many exciting applications—from new medicines to new kinds of nanotechnology....'" Their stated goal is "the fashioning of a halfsynthetic organism that could actually replicate its unnatural self as long as scientists continuously supplied it with the necessary molecular material. Romesberg said that, in principle, his team's high-concept work has a very practical purpose: to gain a 'greater power than ever' to fashion new treatments by harnessing the power of genetics." Like I said: playing god. Call me unimaginative, but I can't see how this could possibly end well. Or how about *this* scenario? A *Bloomberg.com* article by Elizabeth Lopatto (February 25, 2014) is entitled: "Dad May Join Two Moms for Disease-Free Designer Babies." No, it's not what you think. It's probably worse.

"A new technology aimed at eliminating genetic disease in newborns would combine the DNA of three people, instead of just two, to create a child, potentially redrawing ethical lines for designer babies. The process works by replacing potentially variant DNA in the unfertilized eggs of a hopeful mother with disease-free genes from a donor." The article reports on ethics hearings convened by the FDA to decide whether such a thing should be allowed with human subjects. (Did I just use the terms "ethics" and "FDA" in the same sentence? What was I *thinking*?)

"Because the process would change only a small, specific part of genetic code, scientists say a baby would largely retain the physical characteristics of the parents. Still, DNA from all three—mother, father, and donor—would remain with the child throughout a lifetime, opening questions about long-term effects for this generation, and potentially the next. Ethicists worry that allowing pre-birth gene manipulation may one day lead to build-to-order designer babies. 'Once you make this change, if a female arises from the process and goes on to have children, that change is passed on, so it's forever,' Phil Yeske, chief science officer of the United Mitochondrial Disease Foundation, said. 'That's uncharted territory; we just don't know what it means. Permanent change of the human germline has never been done before, and we don't know what will happen in future generations.'"

"Potentially, the procedure may cut off mitochondrial diseases that are passed down through females and occur in about 1 in 4,000 people. One example is Melas syndrome, which causes a person to have continuing small strokes that damage their brains, leading to vision loss, problems with movement, dementia and death, according to the National Institutes of Health. 'What the FDA needs to think about is that this isn't a procedure to *repair* mitochondrial disease,' said Vamsi Mootha, a professor of systems biology and medicine at Harvard Medical School in Boston who studies mitochondrial disorders. 'It's designed to *prevent* disease. It's designed to offer a woman who's a carrier for disease more options....'"

Once again, I am compelled to point out the fundamental flaw in this whole line of reasoning. It is based on the premise that there is no "Creator," that all life is accidental, that it began on this planet through a lucky fluke, a natural event so incredibly unlikely it could never happen again (though—illogically—it is also taken as an article of faith that it must have happened on millions of other planets throughout the universe). Anyway, from that first fortuitous accident, successive species spontaneously appeared, evolving steadily upward until we arrived at the dizzyingly improbable complexity of the biosphere we know it today. The "fundamental flaw" lies in the fact that the human genome is *deteriorating* at an alarming rate—hence the perceived need for these transhumanist biological heroics. (If you'll recall from our Appendix on *Pestilence and Disease*, there are well over 700 genetically caused diseases floating around in the human genome.) We are *not* evolving; we are *devolving*. 99.9% of all the species that ever lived are extinct, but neither the fossil record nor modern biology can perceive an ongoing proliferation of new life forms, or steady progress toward greater complexity. Quite the contrary: our genetic diseases are driving us all toward extinction—and sooner rather than later.

Thus everything the scientists *know* (as opposed to what they merely wish to be true) compels them to acknowledge the existence and work of a divine Creator. But once you've crossed that bridge, logic dictates that you also *trust* Him to know what He's doing, *listen* to what He revealed about Himself and His plan, and yes, *worship* Him. If today's scientists did this, they would doubtless find themselves working on, shall we say, *less ethically thorny* research. And yes, many would eventually find themselves without funding, tenure, or peer status. It's that kind of world.

Lopatto concludes, "In the 1982 position paper, 'Splicing Life,' the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research made a distinction between gene therapy that takes place after someone is born compared with manipulation that occurs before, altering the body's genome. 'There was broad consensus that the latter, called germ-line engineering, *shouldn't* be pursued, said Sheldon Krimsky [professor of Urban & Environmental Policy & Planning at Tufts University in Boston] who was one of the consultants for the paper. That changed 'starting in the late 1990s, when people started whittling away at that distinction,' he said. 'You're altering the genome of an unborn child, someone who can't make a judgment about whether they want to be genetically modified,' Krimsky said. 'What will be next, once you allow this?'" The return of the *nephilim*, perhaps?

The *Huffington Post*, reporting on the same FDA conference, noted that "The only reason a prospective female parent would consider the procedure, known as "maternal spindle transfer" (MST), is if her own oocytes (the immature form of an egg) contained impaired mitochondria, or energy-extracting organelles. Only a handful of women who are affected by certain forms of mitochondrial disease would be candidates for MST, and they could use existing and far safer IVF techniques to have a healthy and genetically related child. But the researchers working on MST at Oregon Health Sciences University and Columbia University are eager to move ahead with it." And *why* are they so eager? The cynic in me

smells a vast new market in "designer babies," once the technology has been perfected, patented, and packaged.

"One can make arguments in either direction about which of the female parents in an episode of MST is the "mother," but biologically speaking, the woman who provides the egg has a unique role in the reproductive process. To see why this is the case it is helpful to note that many animals—some fish and frogs under natural conditions, and experimentally, mammals—can produce embryos from the egg alone, without fertilization. Such 'parthenogenesis' is not possible starting from an oocyte's chromosomes or even an intact sperm cell.

"The egg is essential because in addition to its mitochondria it contains hundreds of different protein and RNA molecules it incorporates during its formation in the egg producer's ovary. This information directs the use, or 'expression,' of the transferred genes at the early stages of the embryo's development. From the standpoint of the woman who contributes this one nonredundant ingredient, the extent of genetic engineering of her egg in MST is massive....

"It is clear that much more than mitochondria is being transferred or donated in MST. This is obscured in most reports on the subject, even in scientific journals. A recent report in the journal *Nature* states, 'The technique [combines] genetic material from a mitochondria donor, the mother who provides the nucleus, and a father.' To use the emotive term 'mother' only for the donor of the maternal set of chromosomes downplays the unique biological role of the egg and of the woman who contributes it. It has the further effect of endorsing the false assertion of MST's advocates that the procedure comes down to the transfer of a few (i.e., the mitochondrial) genes. What is actually being transferred are 20,000 or so genes provided by the chromosome donor." I realize that they're talking in biological (not sociological) terms here, but speaking as an adoptive parent (nine times over), I can state with assurance that one's *real* mother is the one who nurtures him, cares for him, and loves him unconditionally as long as life lasts. Biology has little or nothing to do with it.

The article proceeds to enumerate serious flaws with the science: "Half of the human eggs tested underwent abnormal fertilization, with excess DNA being carried over to the embryos, resulting in chromosomal abnormalities." Nevertheless, it was hinted that the FDA "is taking steps that may eventually lead to the procedure's becoming an option in assisted reproduction for a small group of affected individuals. But because it is a much more extensive manipulation than advertised, it will open the door to routine applications of germline (i.e., inheritable) gene modification. In particular, once the transfer of an entire haploid (i.e., one-parent's) set of chromosomes into a woman's egg is considered acceptable, transfer of a smaller number of chromosomes or genes will be a much easier sell." In other words, the people pushing for a new market in genetically modified children will continue to nibble away at the edges of all ethical resistance until there's no moral principle remaining to stand upon—nothing left to defend. It's the same satanic technique that brought us the United Nations, gay marriage, and gangsta rap song lyrics.

"Narrow and selective application of scientific information can be misleading about the contributions of, and impacts on, each of the adult participants of MST. Few would disagree that biologically, the most relevant perspective for judging the procedure is that of the new individual who would be brought into being by it. This person would develop from a fertilized egg in which all but a few genes (those of the mitochondria), not just those of the male parent, come from a source other than the egg itself. This clearly makes any such person a product of wholesale genetic engineering. We do not know nearly enough about the process of embryonic development for the FDA to even contemplate approving this procedure." Which is not to say our government will not only contemplate it, but will eventually give its unqualified blessing—just as they did with genetically modified foods.

Be that as it may, the idea of using bits and pieces of DNA from two "mothers" in order to create one perfectly healthy baby—free from genetic diseases carried by the woman who intends to raise the child with her husband, the child's father (what a concept!) could still be considered a worthy medical procedure, at least in theory. That is, it could be argued that an attempt is being made to address a *bona fide* health issue. Beyond obvious and welcome (and extremely rare) medical applications, though, much of the push toward transhumanism strikes me as solutions to problems that aren't really problems at all—"progress" for the mere sake of forward motion: attempts to extend or enhance human functionality. (Let's face it: that's where the real money is.)

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One transhumanist "hot button" that gets pushed over and over again in reference to the "Last Days" is that of microchips being implanted beneath the skin—a blending of computer functionality with biology. It would seem that hardly anybody, Christian or not, has any trouble seeing the potential connection between "the chip" and the dreaded and infamous "mark of the beast" of prophetic writ. "He causes all, both small and great, rich and poor, free and slave, to receive a mark on their right hand or on their foreheads, and that no one may buy or sell except one who has the mark or the name of the beast, or the number of his name." (Revelation 13:16-17) Subdermal microchips, of course, are not in themselves the

mark of the beast—since the mark entails overt obeisance to Satan through loyalty to the antichrist. But they could easily be the vehicle by which the mark is implemented.

So prophecy researchers like me have been breathlessly watching the development of the microchip for the past decade or so. If you'll recall, I discussed the history of the chip at length in chapter 19 of this book. But in the interests of bringing us up to date on the subject, let us consult an article published on *ConscienceLifeNews.com* (March 31, 2014) by Christina Sarich. It is entitled, ominously enough, "Getting Ready to Microchip the Entire Human Race."

She writes, "Former Defense Advanced Research Projects Agency (DARPA) director and now Google Executive, Regina E. Duncan, has unveiled a super small, ingestible microchip that we can all be expected to swallow by 2017. 'A means of authentication,' she calls it, also called an electronic tattoo, which takes NSA spying to whole new levels. She talks of the 'mechanical mismatch problem between machines and humans,' and specifically targets 10-20 year olds in her rant about the wonderful qualities of this new technology that can stretch in the human body and still be functional.

"Hailed as a 'critical shift for research and medicine,' these biochips would not only allow full access to insurance companies and government agencies to our pharmaceutical med-taking compliancy (or lack thereof), but also a host of other aspects of our lives which are truly none of their business, and certainly an extension of the removal of our freedoms and rights." This, of course, is where most transhumanist technology eventually leads—into bondage.

Sarich quotes the *New York Times*: "These biochips look like the integrated circuits in a personal computer, but instead of containing tiny semiconductors, they are loaded with bits of *actual DNA* that make up genes or fragments of genes. Inserted in a PC-sized analytical instrument, the chips allow scientists to perform thousands of biochemical experiments at a fraction of the cost and time required for traditional tests."

While the typically naïve *Times* waxes eloquent on the glorious possibilities latent in this new diagnostic tool, Sarich is somewhat less enthusiastic—for good reason: "With bio-tech's track record of hybridizing genes in our food and trees as GMOs, why should we give them full access to our entire genetic makeup? With a satellite or the click of a button, these tiny micro-chips could also be set to begin our own demise, or even control our minds.

"And the fact that microchipping has even been mentioned or considered in health care bills is insane. This new Health Care law (Obamacare) requires an RFID chip [to be] implanted in all of us. This chip will not only contain your personal information with tracking capability but it will also be linked to your bank account. And get this: page 1004 of the new law (dictating the timing of this chip), reads, and I quote: 'Not later than 36 months after the date of the enactment.' It is now the law of the land that by March 23rd 2013 we will all be required to have an RFID chip underneath our skin and this chip will be link to our bank accounts as well as have our personal records and tracking capability built into it...'"

It's a demagogue's dream come true. Or, it would be, were it true. *Snopes.com*, the web's self-proclaimed rumor buster, notes: "The referenced information was not part of the 'Obamacare' health care legislation actually enacted by Congress. The page numbers and language cited... were taken from HR 3200, an early House version of health care reform legislation which was never passed by Congress.... The cited wording did not appear in the replacement bill (HR 3590) eventually passed as the Patient Protection and Affordable Care Act, and although similar language was included in initial versions of the subsequent reconciliation bill (HR 4872), it too did not appear in the final version of that bill as passed by Congress."

So all it really proves is that the *idea* of an implantable microchip giving the government access to your most sensitive personal information is near and dear to the powers that be. More to the point, if history is any indication, they will continue to probe for weaknesses in our resolve—until the human race wakes up one morning with "a mark on their right hand or on their foreheads," ensuring that "that no one may buy or sell except one who has the mark..." So far, the RFID chip is just a trial balloon, a flag that progressives will continue to run up the flagpole until somebody salutes.

And it gets worse...

Anybody with his head on straight should be alarmed at the inroads that genetically modified organisms, GMOs, have made in our food supply. As we discussed a few chapters back, these aren't merely hybrids or the result of selective breeding, but are rather the blending of the genomes of two completely different kinds of creatures—corn and bacteria, for example. I suppose it was inevitable that eventually, the mad scientists would try to genetically modify *human* DNA by blending it with that of non-human species. Another article by Michael Snyder appeared on the July 11, 2013 edition of *BlacklistedNews.com*. It's entitled "Human-Animal Hybrids: Sick and Twisted Chimeras are Being Created in Labs All Over the Planet." *Hybrids* is probably not the most technically accurate description he could have used, but I think we get the picture.

The exposé reports that computers aren't the only things being "merged" with human biology. Snyder writes, "Scientists all over the globe are creating extremely bizarre human-animal chimeras. Over the past decade, there have been some absolutely stunning advances in the field of genetic modification. Today, it is literally possible for college students to create new lifeforms in their basements. Unfortunately, laws have not kept pace with these advancements, and in many countries there are very few limits on what scientists are allowed to do....

"Scientists have created genetically-engineered mice with artificial human chromosomes in every cell of their bodies, as part of a series of studies showing that it may be possible to treat genetic diseases with a radically new form of gene therapy. In one of the unpublished studies, researchers made a human artificial chromosome in the laboratory from chemical building blocks rather than chipping away at an existing human chromosome, indicating the increasingly powerful technology behind the new field of synthetic biology.

"Creating mice with artificial human chromosomes is one thing. Creating mice with partly human brains is a whole different ball of wax. According to *LifeNews.com*, researchers at the University of Wisconsin have successfully transferred cells from human embryos into the brains of mice. Those cells began to grow and develop, and they actually made the mice smarter.... Researchers injected mice with an immunotoxin to destroy a part of their brains—the hippocampus—that's associated with learning, memory, and spatial reasoning. Then the researchers replaced those damaged cells with cells derived from human embryos. The cells proliferated and the lab chimeras recovered their ability to navigate a water maze...." Don't let the *source* of these implanted cells go unnoticed: they came from *human embryos*—known as "aborted babies" to you and me. Never let an abomination go to waste.

"Apparently, it is now even possible to grow entire human organs inside animals. In fact, scientists in Japan plan to start systematically growing human organs inside of pigs within 12 months. The goal is to increase the number of organs available for medical transplants, as a recent *Infowars.com* article explained: 'A panel of scientists and legal experts appointed by the Japanese government will be gathering together to begin drafting guidelines governing Japan's historic embryonic research. If all goes according to plan, scientists hope to begin growing human organs in animals [most likely, pigs] within the next 12 months.... Once the embryo is implanted it will grow into a perfect human [organ]—a heart, a kidney, a pancreas, and so on. Then, when the adult pig is slaughtered, the organ will be harvested and transplanted into someone who needs a new one.""

Hence the ethical dilemma: "But once a human organ is grown inside a pig, that pig is no longer fully a pig. And without a doubt, that organ will no longer be a fully human organ after it is grown inside the pig. Those receiving those organs will be allowing human-animal hybrid organs to be implanted into them. One can only imagine what the consequences of doing such a thing would be. You would think that there should be strict limits on this kind of a thing. And in a few areas around the globe, there are some limits. But most of the time the ethical decisions are left up to the scientists: 'Two years ago, the UK Academy of Medical Sciences released a groundbreaking report on "animals containing human material." It concluded that most research on chimeras is permitted by existing UK laws. But it also identified some experiments that should not (yet) be done because of strong ethical objections. One is to breed an animal that has human sperm or eggs. Another is to create a non-human primate with a humanized brain.""

One wonders whether the Torah's death-penalty prohibition against bestiality (in Leviticus 18—right after God's clear commandment adamantly forbidding homosexuality) would be technically violated by these "scientific advancements." Call me timid, but if it were up to me, I wouldn't touch this technology with a tencubit cattle prod.

But Michael Snyder assures us that today's scientific community has no such qualms: "Most people would be absolutely shocked to learn some of the things that are currently being done in the name of science. For example, rice that contains actual human genes is being grown right now in Kansas.... Since about 2006, Ventria has been quietly cultivating rice that has been genetically modified (GM) with genes from the human liver for the purpose of taking the artificial proteins produced by this 'Frankenrice' and using them in pharmaceuticals." So would ingesting something made with this rice constitute *cannibalism*?

He notes that "Figures seen by the *Daily Mail* show that 155 'admixed' embryos, containing both human and animal genetic material, have been created since the introduction of the 2008 Human Fertilization Embryology Act. This legalized the creation of a variety of hybrids, including an animal egg fertilized by a human sperm; 'cybrids', in which a human nucleus is implanted into an animal cell; and 'chimeras', in which human cells are mixed with animal embryos."

"Sadly, this kind of thing is being done all over the planet. Just check out some of the truly bizarre human-animal hybrid experiments that have been taking place all over the globe according to a recent *Slate* article: 'Not long ago, Chinese scientists embedded genes for human milk proteins into a mouse's genome and have since created herds of humanized-milk-producing goats. Meanwhile, researchers at the University of Michigan have a method for putting a human anal sphincter into a mouse as a means of finding better treatments for fecal incontinence, and doctors are building animals with humanized immune systems to serve as subjects for new HIV vaccines.' And here are some other ways that humans and animals are being combined: rabbit eggs with human cells; pigs with human blood; sheep with human livers; cow eggs with human cells; cat-human hybrid proteins." As usual, the stated justification for these laboratory experiments is the promise of enhanced medical treatment. But perhaps the simple answer is "because we can." One gets the sinking feeling that the mad scientists are simply trying out new combinations of genetic code, waiting for serendipity to strike. After all, scientific serendipity these days can be worth hundreds of billions of dollars—almost enough to pay off one's student loans. Perhaps somebody needs to remind them that Batman and Cat Woman are cartoon characters, and Frankenstein was a horror story. If you are not (1) alarmed, (2) disgusted, (3) outraged, or (4) dismayed (or all of the above) by now, then you have not been paying attention.

# High-Tech Weaponry

Global disarmament has been a recurring dream of God's prophets and wishful thinkers alike since time immemorial. Ever since Cain killed Abel with a rock or stick, people have been horrified at man's hatred toward his brother while *at the same time* we worked feverishly creating weapons with which to more efficiently slay one another. Bronze made better weapons than wood; then iron replaced bronze; lead and gunpowder rose to ascendency, only to be eclipsed (though not replaced) by chemicals, nuclear physics, bio-weaponry, and electronics. Today, guns by the millions in the hands of private citizens are the only things standing between some free societies and their power-hungry governments—though the price of such a thing is the enabling and equipping of an immoral criminal class, for whom the laws of God and man mean nothing.

As long as sinful men rule the earth, it seems, weapons will be a necessary evil—a means of defense and a deterrence against aggression. Unfortunately, nobody these days seems to know the difference between defense and a preemptive strike. But the time is coming when Yahweh—as King Yahshua—will rule the earth with a rod of iron, making weapons in the hands of mortal men the height of superfluity. **"For out of Zion shall go forth the law, and the word of Yahweh from** Jerusalem. He shall judge between the nations, and rebuke many people. They shall beat their swords into plowshares, and their spears into pruning hooks. Nation shall not lift up sword against nation, neither shall they learn war anymore." (Isaiah 2:4, cf. Micah 4:3) But until that happens, the creative nature of mankind—under the influence of his corrupt state—will continue to be squandered on the invention of more and more sophisticated ways of killing each other.

I'm not just talking about "better" guns, bombs, or missiles, for in these Last Days, mankind has begun devising weaponry that goes far beyond the simple concept of killing people by launching projectiles at them. But due to their ubiquity, guns are a good place to begin our discussion of high-tech weapons. Today, working models exist for a folding machine gun that disguises itself as an external laptop battery, handguns that require fingerprint ID to fire, or grenade launchers that fire around corners, expend multiple rounds, or have shells programmable to explode at any given point along their trajectory. Bombs exist that you can program *how deep* into the target they'll penetrate before they detonate. Missiles are so accurate these days, they can target *a single room* within a building. If it will deliver a projectile downrange guaranteed to stop the enemy, then somebody has built it—or plans to. There is big money to be made in the facilitation of hatred these days.

The unravelling of a society's moral structure—its increasing willingness to follow man's path (or Satan's) instead of God's—keeps our obsession with weapons on full boil. This is most obvious in regions in which fundamentalist Islam and its consequent hatreds have taken root: a Muslim in the Middle East is far more likely to be murdered by another Muslim than to experience death from any other cause. But the effect of godlessness in society needn't be nearly this complete or pervasive to make life dangerous. Post-Christian America is a good example of what can happen when God's wisdom is abandoned in favor of man's lusts. When "You shall not steal; you shall not covet" is replaced with "I want it, so I'm going to take it," no one is safe anymore.

Police today often have to walk a fine line between "protecting and serving" and using overwhelming deadly force in the interests of self-preservation on the job. Sometimes a gun can stop anything but the subsequent riot or lawsuit. When whole communities have broken free of their moral moorings-when young thugs become local heroes simply because their belligerence has gotten them killed before their time—when race-baiting demagogues descend on the scene of some tragedy with the sole purpose of inciting racial hatred (if the dead aggressor happens to have the right skin color)-when feelings of sadness and dismay morph illogically into rioting, looting, and burning—then what could and should have been a symbiotic relationship between law enforcement and the community it serves becomes instead a state of tense adversarial confrontation. In such times, police can forget their purpose and mandate, and citizens forget why they hired them in the first place. The pendulum swings back and forth between anarchy and oppression; and the sweet spot between them-a peaceful, law abiding citizenry backed up with helpful police equipped to deal with accidents, emergencies, and the occasional domestic dispute—is becoming increasingly hard to find.

So it is not exactly out of a spirit of love or kindness that a whole new industry has arisen: the creation of weapons that are "less lethal." The spirit here is partly one of self-preservation and measured response, but mostly of avoiding lawsuits and ridiculous and counterproductive new regulations. Less-lethal weapons are designed to stop bad behavior without killing the perpetrator. So police now have access to guns that fire a bean-bag round that will knock you down and leave a nasty bruise, but is designed *not* to kill you. For close quarters, there are conducted electrical weapons (CEWs) such as tasers and stun-guns that deliver a shock that is calibrated to stop the most crazed and unreasonable offender in his tracks. High powered strobe lights are used to disorient recalcitrant suspects. Aerosol chemicals like oleoresin capsicum (or alternatively, "pepper spray paintballs") have become commonplace. When people are rioting in the streets, law enforcement agencies have water cannons, tear gas, and even nausea inducing infrasonic sound generators—because felony stupid is not really supposed to be a capital crime.

The other side to the coin is the issue of firearms in the hands of ordinary citizens. In a perfect world, of course, such things would not be necessary, except perhaps for putting food on the table or protection against animal predators in rural areas. But this world is far from perfect. So America's Founding Fathers (wisely, to my mind) framed private gun ownership as a fundamental and natural right. The Second Amendment to the Constitution reads, "A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed." Interestingly, their stated reasons for protecting private gun ownership had nothing to do with hunting, and everything to do with security and freedom in the face of threats from *people*—especially governments, both foreign and domestic—who would, if given the chance, attack and subjugate an unarmed populace. It has been wisely observed that the people who want to do away with the Second Amendment are the very people against whom the law was designed to protect us. And alas, recent history is replete with examples of peoples who were first disarmed by their own governments, and then enslaved or annihilated by them. In this world, governments should fear their citizens, not vice versa.

But what about guns in the hands of criminals—convicted felons? Does not the proliferation of weapons in the hands of ordinary citizens make it easier for criminals to obtain guns? Indeed it does, but this is beside the point: such criminals are *already* prohibited by law from owning firearms, and it is also (obviously) against the law to use a gun in the commission of a crime. The point is that criminals *by definition* do not obey the law. So it makes no sense whatsoever to pass legislation prohibiting law-abiding citizens from keeping and carrying firearms for self-defense.

Predictably, the crime rate in this nation is far higher in cities (like Chicago, Detroit, Washington D.C., and New Orleans) with restrictive gun laws designed to keep firearms out of the hands of ordinary citizens, not just criminals—in the process making self-defense impossible. Meanwhile, both Switzerland and Israel have citizen militias in which virtually everybody of a certain age serves in the

country's military, are trained in the use of firearms, and are required by law to maintain their weapons, even when off duty. As a result, property crime rates in both these nations are extremely low. This should come as no surprise, but to some people, it does.

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It is only when we begin looking at emerging trends in military weaponry on a national scale that we realize that guns (including such things as mortars, grenade launchers, and artillery) are only the tip of the iceberg. The tools we have created with which to do harm to each other are now as varied as our imaginations will allow. There was a time when **"Yahweh saw that the wickedness of man was great in the earth, and that every intent of the thoughts of his heart was only evil continually."** (Genesis 6:5) Somehow I don't think we've made much progress since then. Here is a glimpse at a few of the weapons and delivery systems that have been developed over the past few years.

#### (1) Drones and Microbots.

Heavier-than-air flight is (can you believe it?) only a little over a century old. Once we got to the point where military aircraft were so sophisticated they couldn't really be flown without their onboard computers (a process called "fly by wire), it was only a matter of time before our military gurus figured out that for quite a few battlefield functions, putting a valuable pilot at risk (not to mention a multi-billion dollar aircraft) just didn't make sense anymore—not when it was possible to fly a relatively cheap *unmanned* aircraft into the operating theater from a nice, safe computer console a thousand miles away. Nowadays, gathering intel or delivering bombs is often a lot like playing a computer game—which is where a lot of the drone "pilots" learned how to "fly" in the first place.

*Wikipedia* gives us the nuts and bolts: "An unmanned aerial vehicle (UAV), commonly known as a 'drone' and referred to as a Remotely Piloted Aircraft (RPA) by the International Civil Aviation Organization (ICAO), is an aircraft without a human pilot aboard. There are different kinds of drones: UAS (Unmanned Air System), UAV (Unmanned Aerial Vehicle), RAPS (Remote Piloted Aircraft Systems) and Model Aircraft. Its flight is controlled either autonomously by onboard computers or by the remote control of a pilot on the ground or in another vehicle. The typical launch and recovery method of an unmanned aircraft is by the function of an automatic system or an external operator on the ground….

"They are usually deployed for military and special operation applications, but are also used in a small but growing number of civil applications, such as policing and firefighting, and nonmilitary security work, such as surveillance of pipelines. UAVs are often preferred for missions that are too 'dull, dirty or dangerous' for manned aircraft....

"The U.S. Air Force has recently begun referring, at least to larger UAS like Predator, Reaper, and Global Hawk, as Remotely Piloted Aircraft (RPA) to highlight the fact that these systems are always controlled by a human operator at some location. However, artificial intelligence is advancing to the point where the aircraft are easily capable of taking off, landing, and flying themselves. Then they simply have to be instructed as to their mission. The military distinguishes between 'man *in* the loop' (piloted) and 'man *on* the loop' (supervised) systems, with 'fully autonomous' (issued orders) growing organically from the second into a third category. A.I. systems have been capable of making decisions and planning sequences of actions for decades. As of 2013, few fully autonomous systems have been constructed, but this is more a matter of convenience and technical implementation than of any fundamental barrier....

"To distinguish UAVs from missiles, a UAV is defined as a 'powered, aerial vehicle that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely, can be expendable or recoverable, and can carry a lethal or nonlethal payload.' Therefore, cruise missiles are not considered UAVs because, like many other guided missiles, the vehicle itself is a weapon that is not reused, even though it is also unmanned and in some cases remotely guided."

UAVs needn't look like traditional fixed-winged airplanes (such as the wellknown Predator drone, in service since 1995). *Fox News* (September 18, 2014) introduces us to an emerging trend: micro-drones that mimic bugs in their role as intelligence gatherers. "Is it a wasp? Is it a spider? Is it a fly? It's actually a tiny drone conducting a military surveillance mission. Tiny intelligent flying and crawling robots, inspired by insects and animals, could soon help the armed forces.... The Micro Autonomous Systems and Technology (MAST)-inspired micro robots could provide U.S. ground forces, small units and individual soldiers with the capability to conduct surveillance within complex urban environments and difficult terrain—significantly increasing their safety.

"One BAE Systems prototype looks like a fly and weighs less than an ounce. Its lightweight carbon joints help the robot imitate real flies. With a wingspan of just over an inch, its wings beat 110 times per second. The University of Pennsylvania's smallest robot weighs less than three quarters of an ounce and is very quick—travelling at about 53 body lengths per second. Other tech resembles spiders and lizards. "The robots could be sent on missions to collect lifesaving data for frontline troops. MAST hopes to produce lots of different microbots that will give soldiers additional eyes and ears for different environments. In urban, rough or complex terrains, the microbots could be particularly useful for small units, giving them better situational awareness. Microbots can capitalize on their size to move quietly and easily access small spaces. If a unit approaches a building and needs to know what's inside, for example, the soldiers could deploy a reconnaissance team of microbots. The robots could penetrate the building undetected, search the interior, map the layout, and provide data on the building's occupants and their locations.

"Soldiers may also need to enter areas where GPS technology won't function, such as underground. This would be another scenario where the microbots could provide 3D mapping and navigation. They could also be used to detect and track people or to locate threats such as explosives and bomb making materials. The bots will know the relative positions of their robot counterparts and can detect obstacles in the path of the mini surveillance team. The flying mini-drones will also detect obstacles and threats located above, below, at either side and behind the microbots....

"To ensure that these microbots can be monitored and managed as groups, the team is creating cutting-edge methods of sensing, communication, control and computation. The robots will be able to operate on their own and may eventually be equipped with a range of sensors for location and orientation. They may also provide additional data from audio, thermal, magnetic, and chemical sensors.

"Insects and other animals have been key to developing the mini drones. Working out how insects sense their environment, move around and react to threats is leading to breakthroughs. The Army Research Laboratory, for example, has studied scorpion biomechanics. The hairs on a scorpion's arm can sense vibrations and identify threats in its environment. Researchers want to replicate this capability, allowing a robot to detect footsteps and, if necessary, hide. The scorpion's tail system helps it change its center of motion and gravity. Scientists have also been looking at building a robot version of a scorpion's tail, which helps the arthropod change its center of motion and gravity." It's all wonderful technology—except of course for the fact that its sole purpose is to gain a tactical advantage over people you're trying to kill.

The development of microbot-drones makes me wonder about one of the more esoteric passages in prophetic scripture—the trumpet judgments of Revelation 8 and 9. The first four trumpets appear to happen during the first half of the Tribulation—before the Antichrist's reign of terror begins: a nuclear war that burns a third of the world's vegetation, a volcanic eruption that turns a third of the earth's seas to "blood," an asteroid strike that poisons a third of the planet's fresh water supply, and darkened skies over a third of the earth's surface. But the fifth trumpet judgment (Revelation 9:1-11) speaks of locust-like beings who sting like scorpions being deployed, apparently by a demon (he's described as a "fallen star"). Their mission is to torment (but not kill) people who **"do not have the seal of God on their foreheads"** for a period of five months. It is not much of an extrapolation to define this group (at the very least) as those who have received the "mark of the beast," allying them with Satan and his Antichrist—which would place this plague early in the second half of the seven-year Tribulation (perhaps in 2031).

John describes these "locusts," but they aren't like anything we'd encounter in nature: "The shape of the locusts was like horses prepared for battle. On their heads were crowns of something like gold, and their faces were like the faces of men. They had hair like women's hair, and their teeth were like lions' teeth. And they had breastplates like breastplates of iron, and the sound of their wings was like the sound of chariots with many horses running into battle. They had tails like scorpions, and there were stings in their tails. Their power was to hurt men five months. And they had as king over them the angel of the bottomless pit, whose name in Hebrew is Abaddon, but in Greek he has the name Apollyon [i.e. Destroyer]." (Revelation 9:7-11)

For the moment, forget about who is controlling them, and focus on what they look like—and what they do. Since they have no counterpart in nature, they are either supernatural (i.e., demonic) or they are manmade. I'm not in a position to be dogmatic either way; I'm merely offering a theory—food for thought. Demons have *never* been known to have their own corporeal existence, but rather, as spiritual beings, have always been dependent on dwelling within (and exercising influence or control over) a mortal host, whether human or animal. So the idea that now, for the first time in history, they suddenly have their own physical bodies would seem unlikely. But what if these "locusts" turned out to be microbots—drones that have been invented and manufactured by human beings, men who are in turn being driven by a demonic agenda?

We have already seen how the "image to the beast" central to the worship of the Antichrist is to be made *by people* (whether under duress or not) at the command of the "false prophet" (Revelation 13:14). So it's not unreasonable to conclude that these flying, stinging, scorpion-tailed "locusts" could be a manmade plague as well—microbots manufactured by the billions in automated factories. Between the advances in artificial intelligence, battery development, miniaturization, and materials technology that might be expected to become reality by the fourth decade of the twenty-first century, the scenario is perfectly plausible. If they're manmade, what makes them home in on holders of the mark of the beast is left to our speculation, but it could easily have something to do with the way the mark can be expected to be implemented—presumably with a subdermal RFID (i.e., *radio frequency* identification) chip of some sort.

The "five months" of their reign of terror could be a reference to the limits of their power supply, or perhaps an indication that the command and control center from which they're operated is at last breached and rendered inoperable. We're not given enough data to be dogmatic about any particular theory—but the bottom line is, the locusts are only able to torment people for five months.

The obvious objection to the theory is *motive*: the locusts are seen tormenting *Yahweh's* enemies, not the Antichrist's. That being said, the prophetic text clearly states that the Antichrist is not controlling them: *that* is being done by the "angel of the bottomless pit"—ostensibly, a demon. But angels—even fallen ones—*cannot* refuse a direct order from their Creator. If He says, "Proceed to the abyss," or "Go into that herd of pigs," they have no choice but to comply. Nor can demons be relied upon to be loyal allies to those who are in Satan's grasp. Betrayal is what they do. God may allow them a modicum of latitude in this world (for His own purposes, as inconvenient as it may seem to us) but when given a direct order, they *must* do what He says. Under this scenario, then, the stinging locusts of Revelation 9 may be the work of mad scientists whose research has, like Frankenstein's monster, gone horribly awry.

Well, it's a theory. No guarantees.

#### (2) Laser weapons.

"Hokey religions and ancient weapons are no match for a good blaster at your side, kid."—*Han Solo (Star Wars, Episode IV)*. Yes, hand-held laser weapons have been standard fare in spacey sci-fi movies since the 1970s. Actually, Buck Rogers' "ray guns" served as the prototypes for all such futuristic fictional weaponry as early as 1933. As we have seen, whatever Hollywood screenwriters can dream up, the mad scientists will eventually try to build.

In this century, laser rifles have actually been built by guys tinkering in their garages, not that they're terribly practical—yet. Back in 2011, Patrick Priebe built one, and published his results on *HackedGadgets.com*: "It holds a small pulse laser head, capable of generating aMW-pulse [*sic*] of coherent infra-red light. One shot can punch through a razorblade, plastic, 5mm Styrofoam when focused. Effective range on 3m (dark surfaces).... You will see a stinging flame and a 5mm stain will remain on target. The goal was to create handheld device...as compact as possible. It's 320mm long and weighs about 2 pounds. Materials used: Plexi for the center-plate, and brass / aluminum for the casing. Each and every part, handmade...took about 70 hours of work."

But for all practical purposes, the first really useful laser guns will be a wee bit larger. Just as technicians in 1960 were justifiably proud if they could build a computer that would fit into a single room, the first laser weapons likely to be deployed will be held in naval vessels, not holsters. *BreakingDefense.com* (May 19, 2014) published an article by Sydney J. Freedberg, Jr. entitled "Laser Weapons: Lower Expectations, Higher Threats," in which he explained how far we've come in making laser weapons a military reality:

"Lasers that can shoot down incoming missiles have been a work in progress since Ronald Reagan's 'Star Wars' days. Now, the Army and Navy not only have working demonstration models but ambitions to field real-world weapons circa 2021." The reasons they expect to finally achieve a working weapon after all these years are both tactical and technological. "Not only have lasers gotten better, the military's expectations have gotten lower—and the urgency of the threat has gotten higher.

Quoting Pentagon science advisor Howard Meyer, Freedberg reports, "Technologically, as in so many other areas, commercial industry is leading the way: 'I can buy lasers for welding, for cutting, [etc.],' Meyer told me. 'There are thousands of these systems out in industry applications all over the world.' In fact, the Navy's 'laser weapon system' (LaWS) is basically just six commercial welding lasers 'strapped together'.... The six lasers don't even cohere into a single beam, he said; they just converge at the target. The simplicity of that approach is what has allowed the Navy to advance LaWS quickly and affordably.... LaWS also embodies the more modest and yet more urgent missions the military now envisions for lasers.

"Reagan's Strategic Defense Initiative envisioned a belt of satellites to shoot down Soviet warheads in space. The enormous flying airborne laser focused on shooting down a few ballistic missiles—say, a North Korean strike—shortly after launch, when warhead and rocket booster are still attached in one large, combustible target. The ABL technology actually worked, said Meyer, but the equipment and chemical power supply filled a converted 747, and the military felt the vulnerable aircraft would be easily shot down before it got into laser range.

"By contrast, both the Navy LaWS and the Army's 'mobile high-energy laser demonstrator' are relatively small solid-state lasers, able to fit on a ship and a truck respectively. They're also designed to fire over relatively short distances at targets much slower and less durable than a ballistic missile, targets such as small drones, fast-attack boats, precision-guided mortar rounds, tactical rockets, or—at the high end—anti-ship cruise missiles. Iran and its proxy Hezbollah have most of these weapons already and are working on the others, and many experts predict cheap precision-guided weapons will proliferate worldwide in the near future. "Meyer agrees. In future conflicts, 'I am going to have mortar rounds or cruise missiles or UAVs coming in,' he told me. 'We will be absorbing G-RAMM [guided rockets, artillery, mortars, and missiles]. We either have to take it out or we have to suffer the losses.' That's the urgent but achievable mission driving the Army and Navy programs. The shipboard LaWS generates just 33 kilowatts of laser energy and still manages to shoot down slow-moving drones in tests; the Navy wants to build a follow-up model generating roughly 60 to 100 kw, potentially mounted on the small Littoral Combat Ship or the mid-sized Arleigh Burke destroyer. The Army, meanwhile, is looking at laser defense platoons with either three 100-kw lasers mounted on large trucks or five 50-kw lasers mounted on smaller Stryker armored vehicles. These power levels can take out cruise missiles, drones, and manned aircraft at ranges of a few miles. Longer ranges would require hundreds of kilowatts, however, and killing a ballistic missile in boost phase would take about a thousand kilowatts—one megawatt or more. An ICBM warhead, designed to survive the heat of reentry, is practically laser-proof.

"So the lasers likely to be fielded in the early 2020s will be modest selfdefense systems, one part of a larger array of countermeasures ranging from Patriot-style anti-missile missiles to electronic jamming, cyberwarfare, and simple preemptive strikes.... Precisely because they're not supposed to be superweapons, however, they're also more achievable."

*Wikipedia* adds, "The Laser Weapon System or LaWS is a directed-energy weapon developed by the United States Navy.... The intended use of the LaWS is ship-defense against drones or small-boat attackers (whether suicidal or not); the LaWS at present is not designed to engage incoming missiles, large aircraft, ships, or submerged objects. LaWS utilizes a solid-state infrared beam which can be tuned to high output to destroy the target, or low output to warn or cripple the sensors of a target. Among the advantages of this device versus projectile weapons is the low cost per shot, as each firing of the weapon requires only the minimal cost of generating the energetic pulse; by contrast, ordnance for projectile weapons must be designed, handled, and transported, take up storage space, and require maintenance."

*Gizmag.com* (September 8, 2014) reports on progress that has been made overcoming one of laser weaponry's Achilles heels: adverse atmospheric conditions. "The problem laser weapons face [is that] such conditions as fog and rain scatter the energy that should be destroying missiles. However, in recent tests at Eglin Air Force Base in Florida, Boeing and the US Army have shown that their High Energy Laser Mobile Demonstrator (HEL MD) is capable of successfully locking onto and taking out targets in very laser-unfriendly foggy, rainy, and windy maritime conditions. "The HEL-MD is the US Army's first mobile, high-energy laser, Counter Rocket, Artillery and Mortar (C-RAM) platform. It consists of a 10-kW highenergy laser mounted on an Oshkosh tactical vehicle and is capable of tracking and engaging (a polite way to say 'blasting out of the sky') a variety of targets. It has already undergone extensive testing at White Sands Missile Range, New Mexico in 2013 and at Eglin earlier this year, and now Boeing says that it has managed to engage 150 aerial targets. And not just in the clear, sunny skies of New Mexico, but in the windy, rainy, and foggy conditions in Florida that would normally make for a bad day for the lasers. But the HEL-MD still managed to deal with its targets, including 60 mm mortars and unmanned aerial vehicles (UAVs).

"Exactly how this was done is something that Boeing is keeping close to its chest, but it's likely that it involves using a reference laser beam to probe through, for example, the fog so that computers could analyze how the atmospheric conditions were distorting the laser. The optics in the HEL-MD would then refocus the weapon beam, so the distortion, instead of spreading it or bending it off course, puts it back into the right shape.

"According to Boeing, the next step for the HEL-MD is to boost the power by swapping out the 10-kW laser with a 50- or 60-kW version as part of a demonstration of how well the laser weapon does against other rocket, artillery, mortar and UAV targets. 'With capabilities like HEL MD, Boeing is demonstrating that directed energy technologies can augment existing kinetic strike weapons and offer a significant reduction in cost per engagement, says Dave DeYoung, Boeing Directed Energy Systems director. 'With only the cost of diesel fuel, the laser system can fire repeatedly without expending valuable munitions or additional manpower.'"

Frankly, I'm getting a little tired of people spending multiplied billions of dollars (whether borrowed or taxed) on new weaponry and then trying to "sell me" on it by playing the "economy" card. But perhaps it's just that all these dozens of doomsday factors, converging on a none-too-distant date, are making me cranky. If the military expects these laser weapons to be "fielded in the early 2020s" as modest but practical systems, then you can bet they're expecting to be able to do some real damage with them by the fourth decade of the twenty-first century.

Sigh.

#### (3) EMP and Microwave weapons.

One of the reasons warfare is so expensive these days is that there is a whole lot more to it than lining up and firing guns at each other, Civil War style. Nowadays, computers are as important as cannons in controlling the battlespace. From their humble (yet massive) initial role as targeting tools on battleships during the 1940s, computers are now indispensable in every phase of war—from intelligence gathering, to weapons control, to communications, to tracking inventories of food and munitions. Vehicles, whether ground, sea, or air, do not run without their onboard computer chips. So if you could disable every computer and circuit board being used by both sides of a military conflict, you would instantaneously take the tactics back a hundred years. And if one side could take out all of the computers of the other, an immense advantage would be gained.

That explains why there is a frantic two-pronged research initiative underway seeking to (1) invent electronic weapons that can disable the enemies' computers, while (2) rendering your own computers invulnerable. It's sort of like what happened during the age of the Judges, when the Philistines developed iron weapons, while doing everything they could to keep them out of the hands of the bronze-equipped Israelites. Some things never change. While seeking an advantage in battle has been the goal ever since men began hating each other, it is helpful to remember that the Philistines are extinct, while the Israelites, though the most vilified people in history, are still around. Sometimes it's not what you have that counts, but who has your back.

That being said, *BBC.com* (September 9, 2013) reported on a new weapons system being designed to kill not people, but their computers: "Imagine a weapon that can knock out all the computers in a Syrian military command centre without killing a single person. That's the idea behind high power microwave weapons, which are designed to destroy electronics without causing any physical damage. Last year, Boeing released a video of its High Power Microwave Advanced Missile Project (Champ)—a missile that essentially fries circuits by causing a surge in power. In the short film, Champ was seen taking out a bank of computers. While the system is likely to be still several years away from being fielded, the Air Force has conducted classified work in high power microwaves for years, and some suspect it already has such weapons available."

It was noticed decades ago that nuclear detonations tend to fry any electronics that are operating in the vicinity when the bomb goes off. The reason is not the blast itself, but a side effect, something called an electromagnetic pulse (or EMP). Unfortunately, EMP events don't necessarily *require* a thermonuclear detonation: they can also be generated independently (theoretically, anyway): an "e-bomb" in the hands of terrorists could cripple an electronically dependent community. There is also danger from strong solar flares, if they occur at just the right/wrong time and place. For example, the geomagnetic storm that struck Quebec on March 13, 1989 blacked out all of eastern Canada and parts of New England for twelve hours, causing billions of dollars in economic losses. And as you'll recall, we

elsewhere discussed how the 1859 "Carrington Event," another solar-generated EMP, would have caused catastrophic damage if it had happened in this century.

Tom Harris, writing for *HowStuffWorks.com*, discusses the military applications of electromagnetic pulse weaponry: "The United States is drawn to EMP technology because it is potentially non-lethal, but is still highly destructive. An E-bomb attack would leave buildings standing and spare lives, but it could destroy a sizeable military." This sort of politically correct "kinder, gentler" sort of warfare actually made some sense when our adversaries were Nazis or Communists, or even drug lords. But now that we find ourselves fighting fundamentalist Muslims—who are commanded by their scriptures to either kill the infidels (us), die trying, or face Allah's wrath in the hottest fires of hell themselves-we need to face the fact that (to paraphrase General Philip Sheridan), the only good jihadist is a dead jihadist. That is, as long as they draw breath, Qur'an-believing Islamists will dedicate their lives to our destruction, without regard to their own welfare. I'm not advocating genocide, you understand; I'm merely saying that it is impossible to "coexist" with live jihadists. Were it not for Yahweh's plan for world peace, no flesh would be saved *including* the Muslims'.

Be that as it may, EMP research is ongoing. Harris writes, "There is a range of possible attack scenarios. Low-level electromagnetic pulses would temporarily jam electronics systems, more intense pulses would corrupt important computer data and very powerful bursts would completely fry electric and electronic equipment. In modern warfare, the various levels of attack could accomplish a number of important combat missions without racking up many casualties. For example, an e-bomb could effectively neutralize: vehicle control systems; targeting systems, on the ground and on missiles and bombs; communications systems; navigation systems; and long and short-range sensor systems."

He sees pulse weapons as an alternative to nukes: "EMP weapons could be especially useful in an invasion of Iraq, because a pulse might effectively neutralize underground bunkers. Most of Iraq's underground bunkers are hard to reach with conventional bombs and missiles. A nuclear blast could effectively demolish many of these bunkers, but this would take a devastating toll on surrounding areas. An electromagnetic pulse could pass through the ground, knocking out the bunker's lights, ventilation systems, communications—even electric doors. The bunker would be completely uninhabitable.

But here's the rub. "U.S. forces are also highly vulnerable to EMP attack, however. In recent years, the U.S. military has added sophisticated electronics to the full range of its arsenal. This electronic technology is largely built around consumer-grade semiconductor devices, which are highly sensitive to any power surge.... A widespread EMP attack in any country would compromise a military's ability to organize itself. Ground troops might have perfectly functioning nonelectric weapons (like machine guns), but they wouldn't have the equipment to plan an attack or locate the enemy. Effectively, an EMP attack could reduce any military unit into a guerilla-type army.

"While EMP weapons are generally considered non-lethal, they could easily kill people if they were directed towards particular targets. If an EMP knocked out a hospital's electricity, for example, any patient on life support would die immediately. An EMP weapon could also neutralize vehicles, including aircraft, causing catastrophic accidents. In the end, the most far-reaching effect of an e-bomb could be psychological. A full-scale EMP attack in a developed country would instantly bring modern life to a screeching halt. There would be plenty of survivors, but they would find themselves in a very different world." Imagine suddenly finding yourself back in the 19<sup>th</sup> century, possessing only 21<sup>st</sup> century skills. How long would you last?

*Wikipedia* explains a bit more about how electromagnetic pulses are generated with nuclear weapons: "NEMP (Nuclear EMP) is the abrupt pulse of electromagnetic radiation resulting from a nuclear explosion. The resulting rapidly changing electric fields and magnetic fields may couple with electrical/electronic systems to produce damaging current and voltage surges.

"In military terminology, a nuclear warhead detonated hundreds of kilometers above the Earth's surface is known as a *high-altitude* electromagnetic pulse (HEMP) device. Typically, the HEMP device produces the EMP as its *primary* damage mechanism. The nuclear device does this by producing gamma rays, which in turn are converted into EMP in the mid-stratosphere over a wide area within line of sight to the detonation. NEMP weapons are designed to maximize such effects, especially on electronic systems, and are capable of destroying susceptible electronic equipment over a wide area....

"A *non-nuclear* electromagnetic pulse (NNEMP) is a weapon-generated electromagnetic pulse without use of nuclear technology. Devices that can achieve this objective include a large low-inductance capacitor bank discharged into a single-loop antenna, a microwave generator and an explosively pumped flux compression generator. To achieve the frequency characteristics of the pulse needed for optimal coupling into the target, wave-shaping circuits and/or microwave generators are added between the pulse source and the antenna. Vircators are vacuum tubes that are particularly suitable for microwave conversion of high-energy pulses. NNEMP generators can be carried as a payload of bombs, cruise missiles (such as the CHAMP missile) and drones, with diminished mechanical, thermal and ionizing radiation effects, but without the political consequences of deploying nuclear weapons. So why don't we use them much in battle? "The range of NNEMP weapons (non-nuclear electromagnetic pulse bombs) is much less than nuclear EMP. Nearly all NNEMP devices used as weapons require chemical explosives as their initial energy source, producing only 10<sup>-6</sup> (one millionth) the energy of nuclear explosives of similar weight. The electromagnetic pulse from NNEMP weapons must come from within the weapon, while nuclear weapons generate EMP as a secondary effect. These facts limit the range of NNEMP weapons, but allow finer target discrimination. The effect of small e-bombs has proven to be sufficient for certain terrorist or military operations. Examples of such operations include the destruction of electronic control systems critical to the operation of many ground vehicles and aircraft."

It should be apparent that neither nuclear nor non-nuclear EMP weapons are simple devices (like roadside IEDs) that can be built by your average terrorist in his garage. As much as the jihadists would like to decimate infidel infrastructure using such devices, it has thus far been beyond their ability to achieve. Of course, it is only a matter of time before Iran has working nukes; and Pakistan already has them (more as a threat against India than the west, I'm thinking). But as things stand now, the only people crazy enough to use them are non-national jihadist elements like al-Qaeda or ISIS—and as dangerous and hateful as they are, they don't control national governments. However, because the political situation in the Middle East is so fluid, that could change quite suddenly. (And let us not forget the other lunatic in the room—the North Korean Communists, who have been feverishly working on their own nuclear EMP weapons designed for just one target: America.)

So non-nuclear EMP weapons are doable but hardly worth the trouble, and the high altitude nuclear versions are unthinkable because of the political ramifications: the nation that used them, even against universally despised jihadists like ISIS or Boko Haram, would instantly become a political pariah in the world. Meanwhile, if the jihadists could get their hands on them, they'd deploy them without thinking twice. They're *already* pariahs. One gets the feeling they rather enjoy the role.

So is America doing anything to protect itself against the remote possibility of an EMP attack? No, says F. Michael Maloof, writing for *wnd.com* (October 28, 2013). "Contrary to the findings of a 2008 commission mandated by Congress to consider a defense against an electromagnetic pulse attack and its effects on the national grid, a retired Air Force general who also headed the National Security Agency and the Central Intelligence Agency says that there isn't a solution to an EMP attack. Speaking before the Bipartisan Policy Center at a conference on the threats to the U.S. electrical grid, Michael Hayden also said the Obama administration has no plan to defend against an EMP. "The conference, however, focused more on the impact of cyber attacks on the national grid. Experts say that protection against an EMP also would provide protection from a cyber attack." I don't know what the "experts" are smoking up there, but it seems to be working: although the *effects* of cyber attacks against our national grid could be similar to EMP, the *causes*—and defenses against them—are as different as night from day.

"Hayden said the administration isn't doing anything to come up with a solution, even though scientists have said that proper hardening of the national grid would mitigate an EMP either from a direct hit from a solar flare or a manmade high altitude nuclear detonation that would emit a ruinous pulse.... An EMP event not only would knock out the national grid but would have a cascading effect on all electronics and automated control systems that maintain the life-sustaining critical infrastructures that depend on the proper function of the electrical grid."

The bottom line: we (i.e., our politicians) *know* our electrical grid and computer matrix is vulnerable to EMP events, both natural and manmade; we *know* that there are ways to "harden" our electronic infrastructure against them; we *know* that the cost of doing so would be a fraction of our probable losses should such an event occur; and yet we choose to ignore all that and worry instead about computer hackers with an ax to grind. The current liberal-progressive strategy seems to be to leave America vulnerable in as many ways as possible, so they can use attacks against us as pretexts to further curtail the freedoms of our own citizens. "Never let a crisis go to waste."

#### (4) Directed Energy Weapons.

Kissing cousins to EMPs are what are known as directed energy weapons, or DEWs. According to *Wikipedia*, "A directed-energy weapon (DEW) emits highly focused energy, transferring that energy to a target to damage it. Potential applications of this technology include anti-personnel weapon systems, potential missile defense system, and the disabling of lightly armored vehicles such as cars, drones, jet skis, and electronic devices such as mobile phones. The energy can come in various forms: electromagnetic radiation, including radio frequency, microwave, lasers and masers; particles with mass (particle-beam weapons, technically a form of micro-projectile weapon); and sound—sonic weapons." The advantages? "DEWs can be used discreetly without anyone knowing...." The radiation used "is invisible and can pass through walls." So basically, these weapons are more subtle than bombing or shooting someone. How civilized we're becoming.

We've discussed *microwave weapons* previously, in the context of their ability to disable an enemy's electronic apparatus. But they are also used against human targets. For example, an "Active Denial System is a millimeter wave source that heats the water in the target's skin and thus causes incapacitating pain. It is being used by the U.S. Air Force Research Laboratory and Raytheon for riot-control duty. Though intended to cause severe pain while leaving no lasting damage, some concern has been voiced as to whether the system could cause irreversible damage to the eyes." *No lasting damage?* This is basically the same technology as you use to cook a chicken leg in your microwave oven. Somebody needs to sit down and decide what they *really* want to do to their adversaries.

Another type of directed energy weapon is the *electrolaser*. "It uses lasers to form an electrically conductive laser-induced plasma channel. A fraction of a second later, a powerful electric current is sent down this plasma channel and delivered to the target, thus functioning overall as a large-scale, high energy, long-distance version of the Taser electroshock gun." An electrolaser, then, is something like man-made lightning. It is meant "to kill or incapacitate a human target through electric shock; or to seriously damage, disable, or destroy any electric or electronic devices in the target....

"A *particle-beam weapon* uses a high-energy beam of atomic or subatomic particles to damage the target by disrupting its atomic and/or molecular structure." This type of directed-energy weapon "directs energy in a particular and focused direction using particles with negligible mass. Some particle-beam weapons are real and have potential practical applications, e.g., as an anti-ballistic missile defense system for the United States and its Strategic Defense Initiative. The vast majority, however, are science fiction and are among the most common weapon types of the genre. They have been known by a myriad of fantastic-sounding names: phasers, particle accelerator guns, ion cannons, proton beams, lightning rays, ray guns etc....

"A *plasma weapon* is any theoretical firearm designed to use plasma (highenergy ionized gas) as a weapon. The plasma is typically intended to be created by superheating lasers or superfrequency devices. Such weapons can be intended to be lethal, causing death by serious burns or the melting of targets, or non-lethal and intended to disrupt electronics using an electromagnetic pulse. While no practical example of such weaponry has been produced, corporations such as Boeing have funded research and development into the technology...."

Our hatred for our fellow man is no longer confined to the earth, but may now be expressed in outer space as well. An *electric beam in a vacuum* can be a formidable weapon. "In a vacuum (e.g., in space), an electric discharge can travel a potentially unlimited distance at a velocity slightly slower than the speed of light. This is because there is no significant electric resistance to the flow of electric current in a vacuum. This would make such devices useful to destroy the electrical and electronic parts of satellites and spacecraft. However, in a vacuum the electric current cannot ride a laser beam, and some other means must be used to keep the electron beam on track and to prevent it from dispersing...."

One type of DEW no one seems to want to discuss (possibly because it has no basis in fact) is *scalar-wave radio frequency* directed energy weapons. Granted, the subject sounds like the plot of a bad sci-fi movie. This rather paranoid piece by Vic Livingston gives us the general idea:

"Each day, a nationwide scalar electromagnetic radiation 'multifunctional' radio frequency directed energy weapon attack system employing phased array cell tower antenna transmitter/receivers and GPS satellites, under the administration of U.S. Cyber Command and military contractor Lockheed Martin, is used to silently and invisibly torture, impair, subjugate, and degrade the physical and neurological health of untold thousands of American citizens who have been extrajudicially 'targeted' by a hate- and ideology-driven domestic 'disposition matrix' as 'dissidents' or 'undesirables.'

"Most of these 'targeted individuals' have no idea what is making them sick, tired, exhausted, irritable, confused, lethargic; plagued with painful, debilitating head and body aches; sharp, piercing, painful ringing tones audible only to the target; temporary or permanent cognitive impairment; induction of stroke, heart attack, aneurysm; or diseases such as cancer...leaving them unable to function normally and lead a happy, healthy life. The weapon system also is capable of lethal attack—both 'slow-kill' and 'fast-kill.' Victims of this government-engineered, stealth genocide are robbed of the most basic of human rights—free will, freedom from external manipulation of their physiological and neurological functions.

"The weapon system is capable of delivering speed-of-light scalar (longitudinal) electromagnetic wave attacks (as well as other types of radio frequency energy such as microwaves) that are precision tuned to specific brainwave frequencies of each human target. Virtually all of the victims previously have visited a doctor or neurologist seeking treatment for pounding headache, unexplained fatigue, sleep problems, or disturbing symptoms such as cognitive impairment. Those medical visits allow shadow government operatives to harvest medical records, including EEG test results that facilitate 'brain mapping'—how radio frequency weapon torturers are able to mount radio frequency attacks fine-tuned to each unique individual targeted for no-touch torture, impairment, even 'slow-kill' or 'fast-kill' homicide.

"The scalar waves produced by the radio frequency directed energy weapon (RFDE) are capable of carrying multiple subcarrier radio frequencies that affect human physiology at variable power levels (or 'amplitude'). In effect, the RFDE

arms security forces with a 'God machine' that can manipulate, disrupt, or destroy the biological processes that govern the functioning of human beings. Scientists describe this effect as 'neuromodulation' of the human nervous system—the remote manipulation of physiological and neurological processes, including alteration of consciousness and mood states. Electromagnetic weapon attack precision-tuned to the brain frequencies of unique individuals can put unknowing victims into an induced state of forced fatigue, involuntary yawning, deep sleep or, conversely, forced wakefulness—within a matter of minutes, according to victim accounts and supporting published literature."

I have no idea whether such paranoid ravings have any basis in fact. I mention the subject mostly to reiterate that, whether fact or fiction, the *idea* came from somewhere. We apparently haven't made any progress since the days of Noah, when it was said, **"The wickedness of man was great in the earth, and every intent of the thoughts of his heart was only evil continually."** (Genesis 6:5) In other words, even if we haven't actually built scalar-wave radio frequency weapons, we'd *like to*.

*Sonic weapons* have been on the drawing board since World War II, when the Nazis tried to build a sonic anti-aircraft cannon, based on working sonic weapon prototypes that could supposedly shatter wooden planks at 200 yards. *Wikipedia* reports that "Sonic and ultrasonic weapons (USW) use sound to injure, incapacitate, or kill an opponent. Some sonic weapons are currently in limited use or in research and development by military and police forces.... Some of these weapons have been described as sonic bullets, sonic grenades, sonic mines, or sonic cannons. Some make a focused beam of sound or ultrasound; some make an area field of sound....

"Extremely high-power sound waves can disrupt or destroy the eardrums of a target and cause severe pain or disorientation. This is usually sufficient to incapacitate a person. Less powerful sound waves can cause humans to experience nausea or discomfort. The use of these frequencies to incapacitate persons has occurred both in counter-terrorist and crowd control settings...." The effect is determined by the amplitude (power or volume) and the frequencies (pitch).

"Studies have found that exposure to high intensity ultrasound at frequencies from 700 kHz to 3.6 MHz can cause lung and intestinal damage in mice. Heart rate patterns following vibroacoustic stimulation has resulted in serious negative consequences such as atrial flutter and bradycardia. The extra-aural (unrelated to hearing) bioeffects on various internal organs and the central nervous system included auditory shifts, vibrotactile sensitivity change, muscle contraction, cardiovascular function change, central nervous system effects, vestibular (inner ear) effects, and chest wall/lung tissue effects. Researchers found that low frequency sonar exposure could result in significant cavitations, hypothermia, and tissue shearing.... Tests performed on mice show the threshold for both lung and liver damage occurs at about 184 dB. Damage increases rapidly as intensity is increased."

If you'll recall, in Chapter 24 ("Armageddon") I hypothesized that when the hordes gathered for the Battle of Armageddon are "killed with the sword which proceeded from the mouth of [Yahshua]" (Revelation 19:20), the lethal effect being described could easily be attributed to acoustics: the *literal* word of God. I wrote, "I wouldn't be a bit surprised to find that the 'winepress of the wrath of God' is literally the 'voice of Yahweh,' an incredibly powerful and focused infrasonic event that physically obliterates the allies of Lucifer like a winepress squishes grapes." Whatever the Messiah's literal "sword" turns out to be, those who gather at Armageddon armed with mankind's most sophisticated weapons will discover (too late) how badly outmatched they are: they haven't brought a knife to a gunfight, exactly; it's more as if they've attacked the Lion of the Tribe of Judah with a plastic spork.

#### (5) Passive Attack Weapons

We're used to seeing bombs and missiles—weapons designed to explode on contact—but with some targets, this can create more problems than it solves—for the attacker and the attackee alike. When dealing with an enemy's nuclear, biological, or chemical facilities, the ideal goal (if you're trying to fight a kinder, gentler sort of war) would be to destroy the threat in place, without dispersing the dangerous components (radioactive materials, nerve agents, or deadly viruses, for example) over the entire countryside. "Passive attack weapons" have been invented to do just that.

So *BBC.com* (September 9, 2013) reports, "The US military has for many years been working on weapons designed specifically to target sites believed to house weapons of mass destruction, such as chemical or biological weapons. Using conventional weapons on such facilities runs the risk of spreading highly toxic substances, so the Pentagon has funded a number of what are called 'agent defeat weapons.' The Air Force has confirmed it has two such systems in its inventory. The CBU-107 Passive Attack Weapon (PAW) is essentially a weapon casing packed with thousands of penetrator rods with no explosives. Designed for targets where heat might be dangerous, the idea is that a 450-kg (990-pound) bomb scatters thousands of rods from mid-air over an area of 60 meters, which can penetrate containers filled with chemical weapons, and allow them to drain into the ground to minimize dispersal. The BLU-119/B CrashPad is a more explosive, rapid option. The CrashPad ruptures chemical weapons stores with blast or shrapnel and contains white phosphorous to incinerate chemical agents.

On the CBU-107, *GlobalSecurity.org* offers this assessment: "The Passive Attack Weapon houses various sizes of penetrator rods inside what some called a 'large water heater with fins,' guided by a Wind-Corrected Munitions Dispenser tail kit to help with accuracy. After being dropped from an aircraft, the weapon's outer skin separates at a preset altitude, allowing the individual penetrator rods to free fall to the earth and penetrate their target. With this munition, there is no explosive warhead and minimal collateral damage.

"The CBU-107 Passive Attack Weapon can destroy suspected biological and chemical facilities without scattering dangerous debris. It is filled with 3,700 nonexplosive penetrator rods. The weapon is designed for use against targets such as biological weapons stockpiles or laboratories where explosives are undesirable. The weapon holds 350 14-inch rods, 1,000 7-inch rods, and 2,400 2-inch rods.... The new weapon is designed for use in an environment where warfighters need to disable a target without destroying its surroundings. Some examples include storage facilities, fuel storage depots, power substations or antenna fixtures. It's another way to achieve a battlefield effect without an explosion. They give the capability to attack non-hardened surface targets, and do so with a minimum of collateral damage. The PAW could be dropped on a fuel drum, puncturing it and allowing the fuel to drain without catching on fire or leaving unexploded ordnance on the battlefield for ground troops to worry about."

The second PAW in use isn't *quite* so "passive." Kris Osborn, writing for *DefenseTech.org* (August 30, 2013) explains: "The CrashPad, or BLU-119/B weapon is a high-heat explosive bomb designed to incinerate chemical agents before they can be harmful, according to defense officials and DoD documents. The weapon is a 420-pound, high-heat incendiary weapon with what's called a 'blast-fragmentation' warhead. The CrashPad is built from an existing standard MK 84 bomb body. The 'PAD' in CrashPad stands for 'Prompt Agent Defeat,' referring to the weapon's ability to destroy chemical and biological agents without causing contamination." If you're trying to rid the world of a cache of Sarin gas, for example, it's no good merely breaking the containers open—you need to deploy a heat source so intense, the chemical will be neutralized before it can disperse.

## (6) Cyber Warfare

The whole point of warfare is defeating the enemy, not simply blowing stuff up or killing people (which are the usual tactics). I mean, if you're going to hate your brother, there ought to be some way to measure your success, right? Historically, a body count is one indicator, or territorial gains, or whole populations under submission (and paying taxes) to you. Sometimes, it is deemed sufficient just to be able to hurt someone, cause a little suffering, precipitate poverty, or cause anxiety—anything to elevate yourself by diminishing somebody else. And occasionally, nations find themselves fighting ill-defined "defensive wars," which can't be won at all, but only survived—conflicts in which the enemy can't be defeated (since genocide is not an option), but only delayed.

Obviously, I'm being cynical. Maybe it's just that I'm bone-weary of the pointless and unwinnable "wars and rumors of war" that are a constant feature of these Last Days in which we live. Maybe it's the constant and unrelenting undercurrent of fear (or anger, or hate, or hopelessness) that permeates virtually every society on earth today. It seems there are only two exceptions: people who are clueless as to what's going on around them, and children of Yahweh who (in our lucid moments) realize that our God holds our destinies in the palm of His hand, regardless of the level of turmoil raging all about us. Unfortunately I'm afraid, the clueless sleepers have only a short time left before they will be compelled to awaken—and by then, it may well be too late.

With that in mind, one tactic that looms large in this so-called "information age" is deployed not against people, but the computers upon which they depend. Its point is not to kill you outright, but "merely" to make your life difficult. Cyber warfare is designed to inconvenience people, slow them down, frustrate them, or impoverish them. It may be seen as a good thing if you're trying to prevent insane jihadists from developing nuclear weapons. But the "bad guys" play the game too. In fact, it doesn't even take a nation-state with a robust infrastructure and economy to do immense damage to their victims. All it takes is a couple of guys in a basement in Bulgaria with computer skills and either a bad attitude, an axe to grind, or an evil patron with deep pockets.

*BBC.com* (September 9, 2013) reports, "In 2010 the Pentagon set up the US Cyber Command to coordinate and conduct both defensive and offensive military operations in cyberspace. The Stuxnet virus, designed to destroy Iran's uraniumenriching gas centrifuges, and first identified that same year, is believed to have been a demonstration of the US's abilities to wage war by attacking enemy computer systems. There have already been calls for the White House to launch cyber operations against Syria. Targets could be military, such as air defenses, or critical infrastructure, such as the electricity grid or financial systems. Some cyber attacks use malware (malicious software) to gain access to enemy systems in order to either steal sensitive information or gain control of them. Information can be harvested using key logging software that tracks keystrokes, for example. Spoofing involves forging packets of data so that they look as if they come from legitimate sources. There are also data-driven attacks. A common form is the denial of service (DDoS) attack which aims to cripple systems by bombarding them with data, usually using bot-nets-large numbers of compromised computers."

Besides the not-so-petty theft motive and cyber-attacks prompted simply by mean-spirited troublemakers (harm for harm's sake—hacking "because we can"), there are a variety of sub-types of cyber warfare, many of which have the potential to effect a great deal of societal disruption. *Wikipedia* lays out the playing field for us:

*"Espionage and national security breaches.* Cyber espionage is the act or practice of obtaining secrets (sensitive, proprietary or classified information) from individuals, competitors, rivals, groups, governments and enemies; also for military, political, or economic advantage using illegal exploitation methods on internet, networks, software and or computers. Classified information that is not handled securely can be intercepted and even modified, making espionage possible from the other side of the world....

*"Sabotage.* Computers and satellites that coordinate other activities are vulnerable components of a system and could lead to the disruption of equipment. Compromise of military systems...that are responsible for orders and communications could lead to their interception or malicious replacement. Power, water, fuel, communications, and transportation infrastructure all may be vulnerable to disruption. The civilian realm is also at risk: security breaches have already gone beyond stolen credit card numbers; potential targets can also include the electric power grid, trains, or the stock market....

*"Denial-of-service attack.* In computing, a denial-of-service attack (DoS attack) or distributed denial-of-service attack (DDoS attack) is an attempt to make a machine or network resource unavailable to its intended users. Perpetrators of DoS attacks typically target sites or services hosted on high-profile web servers such as banks, credit card payment gateways, and even root nameservers. DoS attacks may not be limited to computer-based methods, as strategic physical attacks against infrastructure can be just as devastating. For example, cutting undersea communication cables may severely cripple some regions and countries with regards to their information warfare ability.

*"Electrical power grid.* The United States Department of Homeland Security works with industry to identify vulnerabilities and to help industry enhance the security of control system networks, the federal government is also working to ensure that security is built in as the next generation of 'smart grid' networks are developed.... Massive power outages caused by a cyber-attack could disrupt the economy, distract from a simultaneous military attack, or create a national trauma." While the threat of *cyber attacks* is being addressed, other potential threats to the grid are (as we have seen) mostly being ignored.

The motivations for perpetrating such cyber-attacks are also wide ranging:

*"Military.* General Keith B. Alexander, first head of the recently formed USCYBERCOM, told the Senate Armed Services Committee that computer network warfare is evolving so rapidly that there is a 'mismatch between our technical capabilities to conduct operations and the governing laws and policies. Cyber Command is the newest global combatant and its sole mission is cyberspace, outside the traditional battlefields of land, sea, air and space.' It will attempt to find and, when necessary, neutralize cyber-attacks and to defend military computer networks.... The kind of targets that his new headquarters could be ordered to attack include 'traditional battlefield prizes—command-and-control systems at military headquarters, air defense networks, and weapons systems that require computers to operate.' The distributed nature of internet based attacks means that it is difficult to determine motivation and attacking party, meaning that it is unclear when a specific act should be considered an act of war.

*"Terrorism.* Eugene Kaspersky, founder of Kaspersky Lab, concludes that 'cyberterrorism' is a more accurate term than 'cyberwar.' He states that 'with today's attacks, you are clueless about who did it or when they will strike again. It's not cyber-war, but cyberterrorism.' He also equates large-scale cyber weapons, such as the Flame Virus and NetTraveler Virus which his company discovered, to biological weapons, claiming that in an interconnected world, they have the potential to be equally destructive.

*"Civil.* Potential targets in Internet sabotage include all aspects of the Internet from the backbones of the web, to the Internet Service Providers, to the varying types of data communication mediums and network equipment. This would include: web servers, enterprise information systems, client server systems, communication links, network equipment, and the desktops and laptops in businesses and homes. Electrical grids and telecommunication systems are also deemed vulnerable, especially due to current trends in automation.

I might add *Domestic Espionage* to the list—the process by which a government collects data on its own citizens, without warrants, and even without suspicion of wrongdoing. It's the sort of thing the NSA's Edward Snowden blew the whistle on. It's not that I'm a big advocate of the right of privacy for privacy's sake, and it's not that I have something to hide (my sins are all too obvious to anyone who knows me). It's not even that I don't realize that occasionally, criminals are apprehended and brought to justice based on information obtained through such domestic espionage. It's just that this maxim has never failed to prove true: the government that doesn't trust its citizens is *always* untrustworthy itself. Our money has "In God we trust" printed on it. But *do* we? If we don't trust God at some level, the mutual suspicion between the government and its citizens will eventually consume us all in paranoia.

All of this is in addition to good old-fashioned greed—stealing credit information, for example. Whether the cyber warriors are motivated by politics, religion, greed, pride, or even boredom, the effect is the same: people get hurt. Anyone who uses computers in his daily life (or relies on systems that are controlled by them—like bank accounts or the electrical grid) is vulnerable to one degree or another. So unless one's cyber war activities are geared specifically toward saving lives (like the Stuxnet computer virus that is rumored to have been written to cripple Iran's nuclear weapons program), all such activity is a blatant violation of one of Yahweh's most fundamental principles: we are to love our neighbors as we do ourselves.

Of course, the practically universal abandonment of that principle is what characterizes the age in which we live. It's why the world in these Last Days has become such a nasty place. I can only look forward in hope to a new spiritual paradigm—Christ's Millennial Kingdom. There is every reason to suppose that when our "swords are beaten into plowshares," the weapons of cyber warfare will be included: our computers will be our tools and servants, not the sword of Damocles hanging over our heads.

#### (7) Psychological Warfare.

Psychological warfare is nothing new. It has been going on ever since the serpent beguiled Eve in the Garden, planting doubt and disinformation into her naïve little mind. The classic Biblical example, I suppose, would be this scene from the Assyrian siege of Jerusalem in 701 B.C., recorded by the prophet Isaiah:

"Now it came to pass in the fourteenth year of King Hezekiah that Sennacherib king of Assyria came up against all the fortified cities of Judah and took them. Then the king of Assyria sent the Rabshakeh [the king's vizier and emissary—the head hoodlum] with a great army from Lachish [a previously conquered city in Israel's northern kingdom] to King Hezekiah at Jerusalem. And he stood by the aqueduct from the upper pool, on the highway to the Fuller's Field. And Eliakim the son of Hilkiah, who was over the household, Shebna the scribe, and Joah the son of Asaph, the recorder, came out to him.

"Then the Rabshakeh said to them, 'Say now to Hezekiah, "Thus says the great king, the king of Assyria: 'What confidence is this in which you trust? I say you speak of having plans and power for war; but they are mere words. Now in whom do you trust, that you rebel against me? Look! You are trusting in the staff of this broken reed, Egypt, on which if a man leans, it will go into his hand and pierce it. So is Pharaoh king of Egypt to all who trust in him.' But if you say to me, 'We trust in Yahweh our God,' is it not He whose high places and whose altars Hezekiah has taken away, and said to Judah and Jerusalem, 'You shall worship before this altar'?"' Now therefore, I urge you, give a pledge to my master the king of Assyria, and I will give you two thousand horses—if you are able on your part to put riders

# on them! How then will you repel one captain of the least of my master's servants, and put your trust in Egypt for chariots and horsemen? Have I now come up without Yahweh against this land to destroy it? Yahweh said to me, 'Go up against this land, and destroy it.'"

As is invariably the case with psychological tactics, the Assyrians mixed truth with falsehood, reality with exaggeration, in an effort to discourage and demoralize their foe. Yes, Egypt was unreliable as an ally (not that Hezekiah was seriously considering calling upon them), and yes, Judah's military strength was at its nadir—Hezekiah probably *couldn't* have mustered two thousand cavalry troops at this point. The Rabshakeh was mistaken in his assumption that the "high places" Hezekiah had removed were dedicated to the worship of Yahweh, but he was correct in perceiving that Judah, like Samaria before it, had been plagued with recurring pagan idol worship for centuries. The claim that was calculated to give the Jews pause was that *Yahweh Himself* had empowered and authorized the Assyrians' invasion of Judah. How was Hezekiah to know the truth of the matter? Could it be that his efforts to lead Judah to repentance had been too little, too late?

Knowing how demoralizing such talk might be to Judah's defenders on the wall, Hezekiah's delegation tried to obfuscate the Rabshakeh's message. "Then Eliakim, Shebna, and Joah said to the Rabshakeh, 'Please speak to your servants in Aramaic, for we understand it; and do not speak to us in Hebrew in the hearing of the people who are on the wall.' But the Rabshakeh said, 'Has my master sent me to your master and to you to speak these words, and not to the men who sit on the wall, who will eat and drink their own waste with you?'" Trash talk to be sure (just like today's jihadists) but nobody doubted the Assyrians' ability to make their lives miserable, at the very least. They had already taken all of Samaria, and much of Judah.

"Then the Rabshakeh stood and called out with a loud voice in Hebrew, and said, 'Hear the words of the great king, the king of Assyria! Thus says the king: "Do not let Hezekiah deceive you, for he will not be able to deliver you; nor let Hezekiah make you trust in Yahweh, saying, 'Yahweh will surely deliver us; this city will not be given into the hand of the king of Assyria.'" Do not listen to Hezekiah; for thus says the king of Assyria: "Make peace with me by a present and come out to me; and every one of you eat from his own vine and every one from his own fig tree, and every one of you drink the waters of his own cistern; until I come and take you away to a land like your own land, a land of grain and new wine, a land of bread and vineyards." Beware lest Hezekiah persuade you, saying, "Yahweh will deliver us." Has any one of the gods of the nations delivered its land from the hand of the king of Assyria? Where are the gods of Hamath and Arpad? Where are the gods of Sepharvaim? Indeed, have they delivered Samaria from my hand? Who among all the gods of these lands have delivered their countries from my hand, that Yahweh should deliver Jerusalem from my hand?" (Isaiah 36:1-20)

The Rabshakeh's propaganda said, "Give up. Now. It won't be so bad—just a change of address, a regime change. If we have to come in there and take you by

force, we won't be so nice." His fatal mistake was assuming that Yahweh, the God of Israel, was no more real than the deities worshiped by the pagan nations including Assyria's own gods. You know the story: the prophet Isaiah told Hezekiah not to worry, and then the Angel of Yahweh slew 185,000 Assyrian troops outside Jerusalem's walls in a single night, ending the siege.

But for our present purposes, we're not here to study Yahweh's awesome glory, but rather to examine what psychological warfare is all about—and how it might be brought to bear in these Last Days. Basically, it is any tactic designed to encourage the enemy to give up without a fight—to be so frightened, so convinced that victory is impossible, that resistance is useless. If you can convince the mind, the body will follow.

Sometimes, the tactics are as simple as dropping printed leaflets from airplanes, saying "Resistance is futile: give up." During World War II, radio programs were broadcast into the enemy camp with the basic message, "You can't win; you may as well pack up and go home." Examples include the Japanese' Tokyo Rose and the Germans' Lord Haw-Haw. Redrawing maps and renaming captured cities are popular ploys: St. Petersburg became Leningrad; Volgograd (Tsaritsyn) became Stalingrad; Saigon was renamed Ho Chi Minh City. I've seen maps from the 1930s in which Korea does not exist. The Palestinians publish maps today in which there is no such thing as Israel. Never let reality get in the way of a good storyline.

Sometimes there is a psychological component to ordinary military tactics, as when it is decided to "overdo it" for the sake of making an indelible impression on the enemy. Examples would be America's carpet bombing of North Vietnam, or the "shock and awe" campaign against Saddam Hussein's vaunted Republican Guard. The efficacy of such tactics is debatable, but they are used routinely by protagonists who perceive they've got the upper hand. "We can kill you with impunity: give up."

*Wikipedia* addresses the issue: "During World War II the United States Joint Chiefs of Staff defined psychological warfare broadly, stating 'Psychological warfare employs any weapon to influence the mind of the enemy. The weapons are psychological only in the effect they produce and not because of the weapons themselves.' The U.S. Department of Defense currently defines psychological warfare as: 'The planned use of propaganda and other psychological actions having the primary purpose of influencing the opinions, emotions, attitudes, and behavior of hostile foreign groups in such a way as to support the achievement of national objectives.' This definition indicates that a critical element of the U.S. psychological operations capabilities includes propaganda and by extension counterpropaganda.... "The purpose of United States psychological operations is to induce or reinforce attitudes and behaviors favorable to US objectives. The Special Activities Division (SAD) is a division of the Central Intelligence Agency's National Clandestine Service, responsible for Covert Action and 'Special Activities.' These special activities include covert political influence (which includes psychological operations) and paramilitary operations. SAD's political influence group is the only US unit allowed to conduct these operations covertly and is considered the primary unit in this area.

"Dedicated psychological operations units exist in the United States Army. The United States Navy also plans and executes limited PSYOP missions. United States PSYOP units and soldiers of all branches of the military are prohibited by law from targeting U.S. citizens with PSYOP within the borders of the United States.... A U.S. Army field manual released in January 2013 states that 'Inform and Influence Activities' are critical for describing, directing, and leading military operations. Several Army Division leadership staff are assigned to 'planning, integration and synchronization of designated information-related capabilities.""

Of course, anybody with his eyes open is aware that psychological operations are being conducted against the American public 24/7, in the form of a mainstream news industry that judicially edits content to favor the liberal-progressive agenda. It's not that they lie outright (well, not *all* of the time), but news stories that tend to reveal the failure of socialist or secular-humanist policies are not reported, or are given minimum air time (the electronic equivalent of burying a newspaper story on page 9 of the "style" section). If it were not for cable news (and then, only one American network comes to mind), syndicated conservative radio programs, and the Internet, many relevant stories would never see the light of day. One must wonder at the intentions of people that are this concerned about keeping a lid on the important news of the day. You could protest that this sort of thing isn't exactly a military psychological operation, but I fail to see much of distinction. An entire nation is being kept in the dark (as far as the elites can manage). This fact alone defines *us*—"we the people"—as "the enemy."

The PSYOPS game changer in these Last Days is social media, made possible by the Internet. "Citizen journalists" can post home-made videos on YouTube that support any point of view you can name, and particularly good (or bad) ones are disseminated worldwide via Facebook, Twitter, or some other social media venue. If they're sufficiently significant (or horrifying), they can "go viral," spreading through multiple re-postings like a contagious disease tearing through a West African village. They become psychological *warfare* when they say, "We are going to kill our enemies, and there's not a thing you can do to stop us." The example *du jour* is a string of videos made by the Islamic thugs who call themselves ISIS (the "Islamic State of Iraq and Syria") in which they behead some poor soul who has had the misfortune to fall into their clutches. The goal is not simply to kill the unfortunate infidel; the goal is to cause anguish, frustration, and fear among the people watching the video—*psychological* effects. A Saddam Hussein or Bashar al Assad can kill tens of thousands of people within their own borders, and the world receives the news like a faint squeaking sound in the background of their lives: "Gee, that's awful, but what does it have to do with me?" But then an English-speaking ISIS jihadist stands before a video camera in some God-forsaken desert, introduces a single innocent captive, and then cuts his head off while we watch, and our reaction is precisely what they calculated it to be: utter revulsion.

The idea was apparently to strike terror into the hearts of the despised infidels, leaving us paralyzed with fear and indecision. But there is a fine line between fear and anger, and they've invited us to cross it. It's a little too early to tell, but some good may actually come from this ISIS psychological operation. Ever since 9/11, the fiction has been maintained that at heart, Muslims are a "peace loving people," and that a small radical minority has "hijacked their religion." (I wish I had a dollar for every time I've had to listen to those two ridiculous phrases.) These beheading videos have *finally* forced some people to think about the unthinkable—that the problem isn't *in* Islam, the problem *is* Islam. The truth has been there all along: Muslims are *required* by their scriptures to either convert us, enslave us, or kill us. The fact that most Muslims used to ignore these foundational tenets of their religion changes nothing. The truth is finally beginning to emerge: a "radical" Muslim will cut your head off—while a "moderate" Muslim merely holds your feet down and cheers him on.

So as far as the ISIS psychological ops are concerned, the end result may actually be something the Bible predicted all along—that in the end, people will be forced to choose sides. Get off the fence: serve Allah, Satan, blind chance, or some other false god, or serve Yahweh through His Messiah, Yahshua. Don't look now, but the greatest PSYOP of all time will be the rapture—when the sudden worldwide disappearance of hundreds of millions (I hope) of believers in Christ will force those who are left behind to consider the power of Yahweh they've just witnessed. Will they believe their own eyes, or will they blindly continue to swallow Satan's lies?

# Climate Engineering

One sure sign that we're nearing the "end" is when man declares (whether correctly or not) that he has the power to destroy—or save—the earth. That's

roughly the equivalent of the dust mites on an elephant's back boasting of having achieved mastery over their resident pachyderm. I suppose it was our invention of the atomic bomb during World War II that got mankind used to thinking in such grandiose terms. But something tells me we've vastly overestimated our own importance—our ability to impact our ecosphere. But that does not prevent our species from scurrying about on the elephant's back, trying to make ourselves look important to each other.

Once again, we find that politics and self-delusion are driving the agenda. Because our cities are becoming crowded, secular humanists (who seldom venture out into the countryside) presume that with over seven billion souls now populating the planet, the whole earth must be overcrowded. Then they notice that the levels of a certain trace greenhouse gas are rising, and link that rise (logically enough) to human industry-transportation, power needs, and land use-or abuse, as the case may be. Forgetting how terrified their fathers were at the prospect of global *cooling* back in the 1960s and '70s, they look at the slight pendulum swing toward warmer weather during the '80s and '90s (precipitating a noticeable reduction in Arctic Ocean ice volume in the between 1979 and 2007), extrapolate the trend out over the next century or two with computer models weighted to yield the result they're expecting to find, and conclude that the earth is doomed to boil in its own juices. The ice caps will melt, the seas will rise, the ocean current conveyors will grind to a halt, and all life on earth (at least those more evolved than jellyfish) will cease to be—all because *you* want to drive a Chevy Suburban instead of a Honda Prius.

By the time it became apparent to anybody who was paying attention that the earth's "warming trend" had petered out by the late 1990's, and had once again begun cooling off (*despite* ever increasing CO<sub>2</sub> levels), the humanists' political agenda had been set in stone, and it was too late to turn back. Carbon dioxide had been declared the earth's enemy (never mind that a certain amount of it is essential for life on this planet). The fact that there was, when all of the data was considered, only a minimal correlation between CO<sub>2</sub> levels and global average temperatures, was swept under the rug. Why? Because there was just too much *potential* to advance the greater liberal agenda if carbon were deemed the culprit: there was wealth to be redistributed, power to be seized, and freedom to be suppressed—all while allowing them to plausibly claim to be the saviors of the planet. Were it not for those pesky *facts*, CO<sub>2</sub>-caused global warming would have been the perfect crisis to exploit.

The proposed "solutions" varied, depending on whom you consulted. Job #1, of course, was to shift the terminology: "global warming" had to go—replaced with "climate change" (as if that was something that *hadn't* been going on since the Earth was in diapers). Some (more than you'd imagine, in point of fact)

declared that the best way to "save" humanity from itself would be to kill off ninety percent of the humans—using such methods as imprisonment and starvation in escape-proof megacities, or deliberately inflicting a worldwide Ebola epidemic. Cooler heads began attacking the source of the CO<sub>2</sub> increase: the carbon-based fuels that make our mobile, electricity-dependent way of life possible in the first place. Of course, "emerging" nations like China, India, and Brazil were given a pass (never mind the fact the China has now surpassed America as the world's largest economy)—*they* could pollute all they wanted. But America and Europe (i.e., the post-Christian world) were told they must bear the brunt of the war on carbon. Hundreds of billions of dollars were "invested" in impractical green-energy schemes that failed to live up to their promise, while such tried and true (not to mention plentiful and cheap) energy sources as coal were thrown under the electric bus.

We've discussed all of these things at length in previous appendices. (See *World Demographics* and *Energy Issues* in particular.) But there is a whole area of endeavor that the elites running the world would rather you didn't know about. Why? Because it has "mad scientist" written all over it. *Wikipedia* lays out the program for us in broad strokes: "Climate engineering, also referred to as geoengineering, is the deliberate and large-scale intervention in the Earth's climatic system with the aim of reducing global warming." Of course, since the earth *isn't* warming (and, truth be told, hasn't shown a consistent warming trend since the late 1930s) the whole exercise is something between futile and counterproductive. It certainly isn't necessary, and, as we shall soon see, may be downright dangerous, even though its proponents may *mean well*.

"Climate engineering has two categories of technologies: carbon dioxide removal and solar radiation management. Carbon dioxide removal addresses a cause of climate change by removing one of the greenhouse gases from the atmosphere. Solar radiation management attempts to offset effects of greenhouse gases by causing the Earth to absorb less solar radiation...."

Wikipedia's sources may be understating the case when they insist, "No known large-scale climate engineering projects have taken place to date. Almost all research has consisted of computer modelling or laboratory tests, and attempts to move to real-world experimentation have proved controversial. Some limited tree planting and cool roof projects [i.e., surfaces that reflect sunlight, not absorb it] are already underway. Ocean iron fertilization has been given small-scale research trials. Field research into sulfur aerosols has also started. Most experts and major reports advise against relying on geoengineering techniques as a simple solution to climate change, in part due to the large uncertainties over effectiveness and side effects. However most experts also argue though that the risks of such interventions must be seen in the context of risks of dangerous climate change." I must reiterate that "climate change" *per se* is not inherently hazardous. Global warming *might be* if it were actually happening, but it isn't.

"As a rule of thumb it would appear that the scale of risks and costs of each climate engineering option appear to be somewhat inverse: The lower the costs, the greater the risks. Some have suggested that the concept of geoengineering the climate presents a moral hazard because it could reduce political and public pressure for emissions reduction." (Translation: "If you solve the global warming problem through climate engineering, the *political* goals of the liberal-progressive elite—the redistribution of wealth and the seizure of power—will be rendered redundant, and we can't have *that*.")

Anyway, let us briefly explore these two broad categories of climate engineering technology, carbon dioxide removal and solar radiation management.

## 1. Carbon Dioxide Removal

"Carbon dioxide removal (CDR) methods refers to a number of technologies which reduce the levels of carbon dioxide in the atmosphere. Among such technologies are bio-energy with carbon capture and storage, biochar, direct air capture, ocean fertilization and enhanced weathering. CDR is a different approach than removing CO<sub>2</sub> from the stack emissions of large fossil fuel point sources, such as power stations. The latter reduces emission to the atmosphere but cannot reduce the amount of carbon dioxide *already* in the atmosphere. As CDR removes carbon dioxide from the atmosphere, it creates negative emissions, offsetting emissions from small and dispersed point sources such as domestic heating systems, airplanes and vehicle exhausts....

"Bio-energy with carbon capture and storage (BECCS) is a greenhouse gas mitigation technology which produces negative carbon dioxide emissions by combining biomass use with geologic carbon capture and storage. The concept of BECCS is drawn from the integration of trees and crops, which extract carbon dioxide (CO<sub>2</sub>) from the atmosphere as they grow, the use of this biomass in processing industries or power plants, and the application of carbon capture and storage via CO<sub>2</sub> injection into geological formations...." Don't look now, but that's pretty much just fancy language for "doing things the way God did it in the first place." First, He saw to it that vast woodlands blanketed much of the world's surface—a great deal of which we humans have cut down. And "carbon capture and storage via CO<sub>2</sub> injection into geological formations?" That's called "coal" in the real world.

BECCS sounds just swell, but it should be noted that, against all logic, "Based on the current Kyoto Protocol agreement, carbon capture and storage projects are *not* applicable as an emission reduction tool to be used for the Clean Development Mechanism (CDM) or for Joint Implementation (JI) projects. Recognizing CCS technologies as an emission reduction tool is vital for the implementation of such plants as there is no other financial motivation for the implementation of such systems. There has been growing support to have fossil CCS and BECCS included in the protocol." And *why*, you might ask, are the global elites reluctant to sprinkle holy water on carbon capture and storage technologies? It's quite simple: it's because *coal* could be rendered a relatively clean energy source were such a thing to be approved. The New World Order agenda insists that America (a coal-rich nation) must be brought to its economic knees—its wealth (or as I would phrase it, its *blessings*) distributed to the rest of the world; therefore, anything that makes coal viable is taboo. (Is that cynical enough for you?)

What about biochar? "Biochar is a name for charcoal when it is used for particular purposes, especially as a soil amendment. Like all charcoal, biochar is created by pyrolysis of biomass. Biochar is under investigation as an approach to carbon sequestration to produce negative carbon dioxide emissions. Biochar thus has the potential to help mitigate climate change, via carbon sequestration. Independently, biochar can increase soil fertility of acidic soils (low pH soils), increase agricultural productivity, and provide protection against some foliar and soil-borne diseases. Furthermore, biochar reduces pressure on forests. Biochar is a stable solid, rich in carbon and can endure in soil for thousands of years...."

The basic environmental benefit of biochar is as a carbon sink. "The burning and natural decomposition of biomass and in particular agricultural waste adds large amounts of CO<sub>2</sub> to the atmosphere." We've seen this, for example, in the practice of "slash and burn" agriculture in the tropical rainforests. In contrast, "Biochar, that is, stable, fixed, and 'recalcitrant' carbon, can store large amounts of greenhouse gases in the ground for centuries, potentially reducing or stalling the growth in atmospheric greenhouse gas levels; at the same time its presence in the earth can improve water quality, increase soil fertility, raise agricultural productivity, and reduce pressure on old-growth forests.

"Biochar can sequester carbon in the soil for hundreds to thousands of years, *like coal.*" How's *that* for irony? "Such a carbon-negative technology would lead to a net withdrawal of  $CO_2$  from the atmosphere, while producing and consuming energy.... Researchers have estimated that sustainable use of biocharring could reduce the global net emissions of carbon dioxide (CO<sub>2</sub>), methane, and nitrous oxide by up to...12% of current anthropogenic CO<sub>2</sub>-Ce emissions...without endangering food security, habitat, or soil conservation.

"Biochar is a high-carbon, fine-grained residue which today is produced through modern pyrolysis processes. Pyrolysis is the direct thermal decomposition of biomass in the *absence of oxygen* to obtain an array of solid (biochar), liquid (bio-oil), and gas (syngas) products. The specific yield from the pyrolysis is dependent on process conditions, and can be optimized to produce either energy or biochar...." Basically, it's "burning" without oxidation—yielding carbon, but not much carbon dioxide.

"Switching from slash and *burn* to slash and *char* farming techniques in Brazil can decrease both deforestation of the Amazon basin and carbon dioxide emission, as well as increasing crop yields. Slash and burn leaves only 3% of the carbon from the organic material in the soil. Slash and char can keep up to 50% of the carbon in a highly stable form. Returning the biochar into the soil rather than removing it all for energy production reduces the need for nitrogen fertilizers, thereby reducing cost and emissions from fertilizer production and transport." While a step in the right direction, biochar technology doesn't solve the primary problem caused by cutting down the rainforests—the permanent alteration of rainfall patterns, resulting in desertification, leading in turn to famine. (See Appendix 5: *Water, Air, and Land.*)

For a discussion of the next technique, the direct air capture of CO2, let us consult the *New York Times* (January 5, 2013). An article by Anne Eisenberg was entitled "Pulling Carbon Dioxide Out of Thin Air." She writes, "Whether streaming from the tailpipes of cars or the smokestacks of so many power plants and factories, carbon dioxide emissions keep growing around the globe. Now a Canadian company [Carbon Engineering Ltd.] has developed a cleansing technology that may one day capture and remove some of this heat-trapping gas directly from the sky. And it is even possible that the gas could then be sold for industrial use....

"Should the cost of capturing carbon dioxide fall low enough, the gas would have many customers, he predicted. Chief among them, he said, would be the oil industry, which buys the gas to inject into oil fields to force out extra oil. The injection has minimal risk, said Howard J. Herzog, a senior research engineer at the Massachusetts Institute of Technology. 'The enhanced oil recovery industry has put tens of millions of tons of carbon dioxide into the ground every year for decades with no problems,' he said...." Note that the technology is being driven by the prospect of good old fashioned corporate profits, not by fuzzy politically correct pseudo-science. "The global demand for carbon dioxide will only grow as oil becomes scarcer and demands for transportation fuel rise.... Direct capture from the atmosphere would offer another source for the gas....

"Carbon Engineering's machines use a carbon-dioxide-absorbing solution of caustic soda to remove the gas from the air. 'The issue at the pilot plant,' Dr. David Keith [President of Carbon Engineering] said, 'will be to test the equipment at the scale the vendors tell us they need' to provide performance guarantees for a full commercial plant. The process is intended to collect at least 100,000 tons a year of the gas." (As point of reference, the average passenger vehicle generates about five tons of carbon dioxide per year.) "The concentration

of carbon dioxide scrubbed from the flue gases of coal- and gas-fired power plants is about 5 percent to 15 percent—higher than that in the air, where it is about 393 parts per million.... The recovered carbon dioxide may be sold one day, not only for enhanced oil recovery, but also to feed algae to produce biofuel....

Remember our discussion about "carbon credits" and proposed "cap and trade" laws in *Appendix 9, Energy Issues*? "Gas capture would be extremely important in developing a rational price for carbon emissions, said Dr. Timothy A. Fox, of the British mechanical engineering society. 'Whatever it costs to take it out of the air and store it away,' Dr. Fox said, 'that's the price polluters would pay if they want to put carbon into the air.' Another advantage of direct air capture is geographic flexibility. 'It doesn't matter where you take the carbon dioxide out,' he said, since the gas is mixed evenly in the earth's atmosphere. 'You could have air capture machines in the Australian desert to account for New York City car emissions.'"

"Most important, air capture could be used to get rid of that last fraction of carbon dioxide that escapes into the air, for example, even from power plants outfitted to collect most of their emissions, said Klaus S. Lackner, a Columbia professor and a board member and adviser to Kilimanjaro Energy, another company working on collecting atmospheric carbon dioxide. 'I see direct air capture as the long-term way of dealing with all those emissions that can't be dealt with in any other way,' he said."

The next climate engineering technique on *Wikpedia's* list is: "ocean fertilization or ocean nourishment—a type of geoengineering based on the purposeful introduction of nutrients to the upper ocean to increase marine food production and to remove carbon dioxide from the atmosphere. A number of techniques, including fertilization by iron, urea and phosphorus have been proposed. Another possible objective of ocean fertilization is to produce more sulfate aerosol in the atmosphere and so increase the amount of sunlight being reflected by clouds, cooling the Earth. There has been commercial interest in using these techniques to reduce carbon dioxide concentrations...."

"Iron fertilization can increase phytoplankton productivity. Nitrogen is a limiting nutrient over much of the ocean and can be supplied from a number of sources including fixation by cyanobacteria." See *Appendix 4: Famine Factors* for more on this. My guess would be that giving the phytoplankton in the deep ocean more nutrients will prove insufficient in reversing the damage being done by overfishing, because it supports only one link in the aquatic food chain. But be that as it may, "Carbon-to-iron ratios in phytoplankton are much larger than carbon-to-nitrogen or carbon-to-phosphorus ratios, so iron has the highest potential for sequestration per unit mass added. Ocean fertilization offers the

prospect of both reducing the concentration of atmospheric greenhouse gases with the aim of avoiding dangerous climate change and at the same time increasing the sustainable fish stocks....

"As well as carbon sequestration, ocean fertilization may also create sulfate aerosols which reflect sunlight and modify the Earth's albedo [reflectivity], this creating a cooling effect which reduces some of the effects of climate change." This might seem to make sense, were it not for the fact that the earth *isn't actually getting warmer*. "Enhancing the natural sulfur cycle in the Southern Ocean by fertilizing a small portion with iron in order to enhance dimethyl sulfide production and cloud reflectivity may achieve this. The goal is to slow Antarctic ice from melting and raising sea level." It's worth noting that *sea ice* at the southern pole is actually increasing, while landlocked glaciers are receding. The warming problem isn't due to CO<sub>2</sub> emissions at all, but from a recent uptick in Antarctic volcanic activity—something that's been happening lately in volcanic zones all over the world. "Fixing" Antarctic warming with ocean fertilization is as if your car is getting poor fuel economy due to dirty fuel injectors, so you try to correct the problem by overinflating your tires.

The final technique used for carbon dioxide removal on *Wikipedia's* list is enhanced weathering, defined thus: "Enhanced weathering refers to geoengineering approaches that use the dissolution of natural or artificially created minerals to remove carbon dioxide from the atmosphere. Since the carbon dioxide is usually first removed from ocean water, these approaches would attack the problem by first reducing ocean acidification.

"Weathering is the natural process in which rocks are broken down and dissolved on the land surface. When silicate or carbonate minerals dissolve in rainwater, carbon dioxide is drawn into the solution from the atmosphere.... Rainwater and bicarbonate ions eventually end up in the ocean, where they are formed into carbonate minerals by calcifying organisms, which then sink out of the surface ocean. Most of the carbonate is redissolved in the deep ocean as it sinks.... Over geological time periods these processes are thought to stabilize the Earth's climate.... Weathering and biological carbonate precipitation are thought to be only loosely coupled on short time periods (<1000 years). Therefore, an increase in both carbonate and silicate weathering with respect to carbonate precipitation will result in a build-up of alkalinity in the ocean, and a decrease in atmospheric  $CO_2$  concentration.

"Enhanced weathering research considers how these natural processes may be enhanced to sequester CO<sub>2</sub> from the atmosphere to be stored in solid carbonate minerals or ocean alkalinity. [Terrestrial] Enhanced Weathering was initially used to refer specifically to the spreading of crushed silicate minerals on the land surface." The idea is, as the minerals are weathered, they create a more alkaline environment, tending to reduce the amount of atmospheric CO<sub>2</sub>.

Oceanic enhanced weathering attempts to harness the motion of ocean waves to achieve the same goal. "To overcome the limitations of solution saturation and to utilize natural comminution [i.e., pulverizing] of sand particles from wave energy, silicate minerals may be applied to coastal environments, although the higher pH of seawater may substantially decrease the rate of dissolution, and it is unclear how much comminution is possible from wave action."

What everybody seems to be missing is that all of these processes designed to remove  $CO_2$  from the atmosphere are *in themselves* energy intensive. How much fuel is required to weather a ton of silicate, or produce a ton of biochar from biomass, or obtain the caustic soda required to remove  $CO_2$  from the air, or to "inject  $CO_2$  into geological formations"? You can't say you've "earned a dollar" if it costs you 98 cents (or a buck fifty) to get there.

#### 2. Solar Radiation Management

The carbon dioxide removal techniques we've been discussing are all based on the erroneous idea that the rising level of CO<sub>2</sub> in the atmosphere (a verified phenomenon) is the direct and primary cause of global warming (excuse me: *climate change*). The fact that except for a brief period of time in the late 20<sup>th</sup> century, the climate *wasn't* warming—and that we've been experiencing a slight cooling trend since the late 1990s—doesn't fit the politically correct narrative. So the liberal elite (and the mad scientists who depend on them for their funding) have been doing their best to disguise the cooling trend with computer models and media hype that insist that what we're seeing and feeling isn't really there.

That being said, there is probably no good reason *not* to take reasonable measures to restrict or sequester  $CO_2$  emissions, for they often accompany pollutants that actually *are* dangerous—like sulfur dioxide and carbon monoxide. In other words, the real issue with which we should be wrestling is air quality, not global warming. Be that as it may, global warming, real or not, has been declared "the enemy," and the settled strategy of the war on carbon is to attack the presumed *cause* of the problem: atmospheric  $CO_2$ .

The *effect*, global warming itself, is the target of the second prevalent climate engineering strategy—solar radiation management. That is, even if  $CO_2$  were causing the earth's atmosphere to retain heat, thus warming the planet, the *source* of the heat is still the sun. Why not just find a way to reflect some of the sun's energy away from our planet? Again, *Wikipedia* explains: "By intentionally changing the Earth's albedo, or reflectivity, scientists propose that we could reflect more heat back out into space, or intercept sunlight before it reaches the Earth through a literal shade built in space. A 0.5% albedo increase would

roughly halve the effect of  $CO_2$  doubling." That's all assuming, of course, that  $CO_2$  actually *is* making the earth warmer, which as we have seen is a shaky premise at best, since the earth is cooling *despite* rising  $CO_2$  levels.

The errant rationale is then reiterated: "These climate engineering projects [which we'll enumerate in a moment] have been proposed in order to reduce global warming. The effect of rising greenhouse gas concentrations in the atmosphere on global climate is a warming effect on the planet." Well, that's what they'd like you to believe. "By modifying the albedo of the Earth's surface, or by preventing sunlight reaching the Earth by using a solar shade, this warming effect can be cancelled out—although the cancellation is imperfect, with regional discrepancies remaining." Since our planet *isn't* warming (except in computer climate models that have no bearing on reality), solar radiation management is at best a solution to a problem that doesn't exist—and at worst, a recklessly dangerous attempt to "play God," as the mad scientists attempt to control planetary forces they don't remotely comprehend.

Indeed, it would appear that even the scientists are reluctant to move into this area as fast as the politicians would like them to. "The applicability of many techniques listed here has not been comprehensively tested. Even if the effects in computer simulation models or of small-scale interventions are known, there may be cumulative problems such as ozone depletion, which only become apparent from large scale experiments....

"Solar radiation management (SRM) techniques would seek to reduce sunlight absorbed (ultra-violet, near infra-red, and visible). This would be achieved by deflecting sunlight away from the Earth, or by increasing the reflectivity (albedo) of the atmosphere or the Earth's surface. These methods would not reduce greenhouse gas concentrations in the atmosphere, and thus would not seek to address problems such as the ocean acidification caused by CO<sub>2</sub>. In general, solar radiation management projects would have the advantage of speedy deployment and effect when compared to other climate policies of mitigation or carbon dioxide removal...." It has apparently occurred to no one that our whole biosphere depends on photosynthesis—the process by which plants turn sunshine into the food we eat. If you reduce the sunlight hitting the earth's surface, you stunt plant growth, shorten growing seasons, and reduce harvest volumes. Even plankton—the foundation of the oceanic food chain—depends on sunlight. Perhaps you guys should go back and rethink this.

Solar radiation management methods include: "(1) Surface-based (land or ocean albedo modification): e.g. cool roof—using pale-colored roofing and paving materials. (2) Troposphere-based methods: for example, cloud whitening—using fine sea water spray to whiten clouds and thus increase cloud reflectivity. (3) Upper atmosphere-based methods: creating reflective aerosols,

such as stratospheric sulfate aerosols, aluminum oxide particles, even specifically designed self-levitating aerosols. (4) Space-based methods: space sunshade—obstructing solar radiation with space-based mirrors, asteroid dust, etc."

Sure. What could possibly go wrong? As usual, the mad scientists aren't thinking in terms of "Should we do this," but merely about "Can we?" Just because they say they aren't making serious "progress" at the moment (but stay tuned—it's worse than they're willing to admit), we can't presume that they won't be a few decades off—say, by the fourth decade of the twenty-first century.

The whole thing is a tragic comedy of compounded errors. The global political elite "need" the earth to be warming so they can redistribute the wealth of the prosperous CO<sub>2</sub>-emitting nations to the "emerging" ones, taking their cut off the top, of course (and more importantly, leveling the playing field (a.k.a. weakening America) so they can eventually rule the whole world—boy, are *they* in for a surprise). But the earth *isn't* warming, even though atmospheric carbon levels continue to rise, so job #1 is a massive media cover-up. Meanwhile, laboring under the carefully crafted illusion that the planet is heating up, the solar radiation management team has set about trying to find ways of cooling the planet that don't involve CO<sub>2</sub>, not realizing that the *political* possibilities of greenhouse gasses are all that really matter to the global elite. At the same time, the volcanologists are warning of increasing crustal activity that could soon spew millions of tons of earth-cooling volcanic dust into the atmosphere. If we're not careful, we could engineer ourselves into a new ice age.

*Wikipedia's* report on the ethics and responsibility issues surrounding climate engineering is revealing: "Climate engineering would represent a large-scale, intentional effort to modify the environment, which differ from inadvertent climate change through activities such as burning fossil fuels. Intentional climate change is viewed very differently from a moral standpoint. This raises questions of whether we as humans have the right to change the climate, and under what conditions this right obtains.

"Furthermore, ethical arguments often confront larger considerations of worldview, including individual and social religious commitments. For many, religious beliefs are pivotal in defining the role of human beings in the wider world. Some religious communities might claim that humans have no responsibility in managing the climate, instead seeing such world systems as the exclusive domain of a Creator. In contrast, other religious communities might see the human role as one of 'stewardship' or benevolent management of the world." This begs the question, of course. Can God be trusted to manage His creation (as He has always done in the past) or can't He? There's a fine line between good stewardship and humanist meddling. "The question of ethics also relates to issues of policy decision-making. For example, the selection of a *globally agreed* target temperature is a significant problem in any geoengineering governance regime, as different countries or interest groups may seek different global temperatures." This whole concept presupposes the benevolent authority of a one-world governing body (like the United Nations, perhaps), which in turn requires the elevation of man to the status of God. Well, it's not as if we hadn't been warned by God (the *real* one) that there would be times like this.

"What most ethicists, policy-makers, and scientists agree on is this: Solar radiation management is an incomplete solution to global warming." Okay, here comes the punch line: "The possible option of geoengineering may *reduce incentives* to reduce emissions of greenhouse gases. It is argued that geoengineering could be used to 'buy time' before drastic climate change happens, allowing mitigation and adaptation measures more time to be implemented and work. But the opposition points out that the resources spent on geoengineering could be used for mitigation and efforts to reduce emissions of greenhouse gases. Geoengineering also does not resolve other issues related to increasing levels of carbon dioxide."

There it is: the real agenda. *We want our designated villain, our bone of contention, our justification for "destroying the mighty, and also the holy people"* (as it's put in Daniel 8:24—it's exactly the same objective as the Antichrist's). They don't really care about managing Earth's temperature; they merely want to be able to use the CO<sub>2</sub> issue to gain wealth and political power.

You can bet that there is a political agenda (and not merely a benign concern for the health of the planet) when the Central Intelligence Agency gets involved in the geoengineering debate. A report by Rob Williams published in *The Independent* (July 21, 2013) was entitled, "CIA backs \$630,000 study into how to control global weather through geoengineering—Study part-funded by the CIA to investigate national security implications of geoengineering." That's right, folks. The CIA sees this as a national security issue, not an answer to global climate change woes.

So Williams writes: "The power, reach and influence of the Central Intelligence Agency is a staple of conspiracy theories. The news that the CIA is reportedly part-funding a scientific geoengineering study into how to control the weather is unlikely to dampen speculation over their activities.

"According to US website *Mother Jones* the CIA is helping fund a study by the National Academy of Sciences (NAS) that will investigate whether humans could use geoengineering—which is defined as deliberate and large-scale intervention in the Earth's climatic system—to stop climate change. The NAS website describes the study as an investigation into 'a limited number of proposed geoengineering techniques, including examples of both solar radiation management (SRM) and carbon dioxide removal (CDR) techniques.' The purpose of this is to comment 'generally on the potential impacts of deploying these technologies, including possible environmental, economic, and national security concerns,' the website claims....

"Much speculation has surrounded claims that the US government has long been involved in types of weather manipulation, including a much-discussed attempt to cloud-seed—the process of dispersing substances into the air to create cloud condensation or ice nuclei and subsequently rain or snow—during the Vietnam war. It was also widely reported that the Chinese government seeded clouds ahead of the 2008 Olympics opening ceremony to create a downpour elsewhere and keep the stadium dry by firing iodide crystals into rain clouds over Beijing. Weather manipulation was most recently in the news after claims by some American commentators that devastating tornadoes in Oklahoma, along with other extreme weather events like Hurricane Sandy, were created by the US government using the HAARP antenna farm in Alaska."

If you'll recall, we discussed HAARP (and competing systems from other countries) back in Chapter 10—"The Next-to-Last Days." Its capabilities include (but are not restricted to) weather modification, a big part of the geoengineering tool kit. If I may, allow me to reprise a paragraph from that discussion:

"...My point is not that we are in the hands of mad scientists who will soon have the capability—not to mention the arrogance—to destroy the earth while attempting to gain a military advantage. (This may be true, but it's not my point.) I just want you to understand that the divine judgments that are prophesied to come upon the earth are not necessarily all miraculously God-generated, like thunderbolts from Zeus being thrown down from Mount Olympus. Rather, the 'wrath of God' may in large measure be nothing more than Yahweh stepping out of the picture and letting us run the world ourselves for a few years (something He has never done since He created it), giving the human race enough rope with which to hang itself."

Now, however, the U.S. has determined that the HAARP program has outlived its usefulness—which makes me wonder what new card they have up their sleeve. An article in *LiveScience.com* by Stephanie Pappas (picked up by *Yahoo News*, May 22, 2014) explains: "Secret Weapon? Conspiracy Theories Abound as US Military Closes HAARP. The U.S. Air Force has notified Congress that it intends to shut down HAARP, a controversial Alaska-based research facility that studies an energetic and active region of the upper atmosphere.

"Conspiracy theorists are abuzz about the news, given that HAARP (short for High Frequency Active Auroral Research Program) has long been the center of wild speculation that the program is designed to control the weather—or worse.... HAARP is a research program designed to analyze the ionosphere, a portion of the upper atmosphere that stretches from about 53 miles (85 kilometers) above the surface of the Earth to 370 miles (600 km) up. The program has been funded by the Air Force, the Navy, the University of Alaska and DARPA (the Defense Advanced Research Projects Agency).

"The U.S. military is interested in the ionosphere because this portion of the atmosphere plays a role in transmitting radio signals. HAARP sends radio beams into the ionosphere to study the responses from it—one of the few ways to accurately measure this inaccessible part of the atmosphere. HAARP operates out of the HAARP Research Station in Gakona, Alaska, where it has a high-power radio frequency transmitter that can perturb a small portion of the ionosphere. Other instruments are then used to measure the perturbations. The goal of the program is to understand the physics of the ionosphere, which is constantly responding to influences from the sun. Solar flares can send solar particles racing toward Earth, occasionally disrupting communications and the electrical grid. If scientists could better understand what happens in the ionosphere, they might be able to mitigate some of these problems.

"But the Air Force is no longer interested in maintaining HAARP, according to David Walker, the Air Force deputy assistant secretary for science, technology and engineering. At a Senate hearing on May 14, Walker said the Air Force has no interest in maintaining the site, and is moving in another direction in ionospheric research." It was left unsaid what this "other direction" was. But I think we can be fairly certain that the U.S. military hasn't lost interest in tinkering with the ecosphere with an eye toward either saving the planet or gaining a battlespace advantage. One gets the feeling that in their patriotic fervor, they can't really tell the difference between the two objectives. Sigh.

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Since we have been lied to by our own government so often over the past half century or so, it is only natural that conspiracy theories now tend to emerge over a wide range of issues. One of the hottest of these issues, potentially connected to the concept of geoengineering, is that of "chemtrails," chemical trails spewing from high-flying jet aircraft.

Predictably, *Wikipedia* does its best to debunk the idea as pure myth: "According to the chemtrail conspiracy theory, long-lasting trails left in the sky by high-flying aircraft are chemical or biological agents deliberately sprayed for sinister purposes undisclosed to the general public. Believers in the theory argue that normal contrails dissipate relatively quickly, and contrails that do not dissipate must contain additional substances. These arguments have been dismissed by the scientific community: such trails are simply normal water-based contrails (condensation trails) which are routinely left by high-flying aircraft under certain atmospheric conditions. Although proponents have attempted to prove that the claimed chemical spraying does take place, their analyses have been flawed or based on misconception....

"There are web sites dedicated to the conspiracy theory, and it is particularly favored by right-wing groups because it fits well with deep suspicion of government. In some accounts, the chemicals are described as barium and aluminum salts, polymer fibers, thorium, or silicon carbide. Other accounts allege that the skies are being seeded with electrically-conductive materials as part of a massive electromagnetic superweapons program based around the High Frequency Active Auroral Research Program (HAARP). Those who believe in the conspiracy say the chemtrails are toxic, but the reasons given by those who believe in the conspiracy vary widely, ranging from military weapons testing to chemical population control to climate control."

The problem, they say, is those pesky conservatives (a.k.a. paranoid right wing lunatics), who don't implicitly trust their government to be honest and benign, for some unfathomable reason. These are the same people who doubt the validity of a war on carbon designed to fight climate change, who don't automatically fall into lock step with what the media reports about the opinions of a "scientific community" (whose funding depends upon toeing the party line). You know the type: Bible thumpers, gun nuts, tea baggers, flag-waving reactionaries...

But occasionally, somebody "inside" is courageous enough to follow their conscience instead of their bank account. Case in point: Kristen Meghan spent nine years as a bio-environmental engineering specialist in the U.S. Air Force. She began asking embarrassing questions related to her job when her inventory and usage figures didn't add up. As time went on, water and soil samples were analyzed, with alarming results. Eventually, pressure was brought to bear to bury her findings (which would have entailed violating her oath of service). She was forced by unassailable facts to conclude that not only were the "paranoid" chemtrail theories true, they were being perpetrated by the very United States Air Force she had so faithfully served. So, threatened and ostracized by her superior officers as a whistleblower, she left her promising military career in 2010. Her revealing *YouTube* videos now pepper the Internet. The cat, as it were, was out of the bag; and all her detractors could do was try to discredit her, branding her a paranoid conspiracy kook.

At the conclusion of one presentation, Ms. Meghan said something that, out of context, may sound a bit hysterical: "Of all the freedoms we are losing, geoengineering is the *number one issue* we're facing, because you can have your guns and money, but if you don't have food and water and you're dying of respiratory and neurological illnesses, what does it matter?" What had she discovered while working as a bio-environmental engineer for the Air Force that alarmed her so badly?

For the specific answers, let us consult a few scientists who *aren't* being paid to keep their mouths shut. This article from Lance Johnson, entitled "Nanosized Aluminum Being Sprayed in the Atmosphere, Causing Degenerative Disease, says Neurosurgeon," appeared in *NaturalNews.com* (July 14, 2013).

"Back in the 1960s, quiet scientific dialogue began about global climate change and how it can be manipulated. What might have turned into a productive discussion of responsible protection of Earth's climate and ecosystem has eventually evolved into a mad science experiment. By the 21st century, jumbo jets were being deployed to drop billions of dollars of nanosized aluminum and other particles into the skies, in attempts to reflect sunlight away from the Earth and cool climate temperatures. This science experiment has exposed populations to massive amounts of airborne metals that are literally raining down and poisoning everyone, slowly, subtly." In case you missed it, that's a precise description of geoengineering through the use of chemtrails.

"According to neurosurgeon Russell L. Blaylock, the nanosized aluminum particles found in chemtrails are contributing heavily to degenerative disease today.... According to Dr. Blaylock, degenerative disease, especially neurological disorders like Alzheimer's, are growing at an alarming rate, due in major part to the mass spraying of nanosized aluminum into the atmosphere.

"Nanosized particles are 'infinitely more reactive and induce intense inflammation in a number of tissues.' Dr. Blaylock states, 'Of special concern is the effect these nanoparticles have on the brain and spinal cord, as a growing list of neuro-degenerative diseases, including Alzheimer's dementia, Parkinson's disease, and Lou Gehrig's disease.' Blaylock explains further that aluminum nano-particles can easily penetrate the brain through the blood and olfactory nerves in the nose. Passing through the olfactory neural tracts, aluminum particles easily penetrate the area of the brain most affected by Alzheimer's disease.... The aluminum particles also enter the body through the respiratory system, where they have been shown to cause tremendous inflammation in the lungs, further aggravating conditions like asthma and pulmonary diseases. Due to their small size, the aluminum particles can even enter the gastrointestinal tract and can disperse into many other organs and tissues in the body, including the spinal cord. "As a neurosurgeon who interacts daily with neurological disease, Dr. Blaylock states his objections to the global spraying of aluminum into the skies: 'Steps need to be taken now to prevent an impending health disaster of enormous proportions if this project is not stopped immediately. Otherwise we will see an explosive increase in neurodegenerative diseases occurring in adults and the elderly in unprecedented rates as well as neurodevelopment disorders in our children. We are already seeing a dramatic increase in these neurological disorders and it is occurring in younger people more than ever before.""

Johnson compares the dangers of geoengineering to those of bioengineering the genetic modification of the foods we eat (GMOs). He also brings up the issue of moral authority, asking, "When did any group, government, or billionaire gain the authority to use jets to pour massive amounts of elements on unsuspecting populations of people?" Of course, the utter lack of authority (moral, legal, or otherwise) explains the denial, obfuscation, and evasion that surrounds the issue.

Personally, I am disinclined to brush the whole phenomenon of chemtrails off as mass hysteria—a mistaken and paranoid take on harmless contrails from high flying airplanes. Why? Because there is just too much information out there that supports the "conspiracy theory," thousands upon thousands of web pages from otherwise rational people who—with no incentive to do so other than disseminating the truth—are going out of their way to "blow the whistle." Some (as we have seen) are working professionals whose lives and vocations have been impacted by the practice. Others are the rare individuals who are medically hypersensitive to them—who can actually smell and taste what they're seeing in the sky, right before they become ill. As for me, I'm only reporting what shows up on the Last Days radar: one more thing to make us ponder the unravelling of human society—and one more factor that seems poised to reach fruition (*whatever* that is) by the fourth decade of the twenty-first century.

Up until now, we have been laboring under the assumption that the chemtrails (presuming they actually exist) are being sprayed in order to reflect sunlight away from the earth, cooling the atmosphere—a tactic intended to combat global warming. But what if their real purpose is more sinister? What if the health hazards they pose are not merely an unfortunate and unforeseen side effect, but the whole point? That is the premise of a lengthy post by Paul Adams, J.D. entitled "The Purpose of Geoengineering and Chemtrails is Death" that appeared on the rather hysterical blog, *Koenig2099.wordpress.com* (June 12, 2013). As I try to whittle this down to the basics, you should probably remind yourself that "just because you're paranoid, it doesn't mean they *aren't* out to get you."

Adams writes, "Geoengineering, often referred to as chemtrails, exists as a global nuisance for the primary purposes of causing severe bodily injury and premature death with malice aforethought. Geoengineering involves large aircraft

constantly spraying tiny particles of aluminum and barium, amongst many other harmful toxins, into the air/atmosphere. All people and animals then inhale these toxins while breathing, without informed consent. The toxins also poison the soil and fresh water sources.... On a massive scale geoengineering will likely result in democide if not stopped completely. According to Professor R.J. Rummel of the University of Hawaii, Democide is the murder of any person or people by a government, including genocide, politicide, and mass murder. (Democide does not include soldiers killed in battle.) During the 20th Century alone, Rummel calculates, government power was used to murder approximately 262,000,000 people. It appears that history is repeating itself with improved technology.

"Secondary purposes of geoengineering include controlling the climate/weather for warfare and profits, and destroying the natural world while furthering the transhumanist/synthetic biology agenda. The evidence indicates that geoengineering is an essential element of the elite's endgame move *to depopulate the planet*. The public must be educated and the stratospheric spraying stopped immediately...."

Adams takes note of the mountain of evidence demonstrating that geoengineering chemtrails do indeed exist (and not just in America, but worldwide), and that their toxicity has been openly acknowledged by several government agencies (like the state of Texas). But the official "line" is still that chemtrail geoengineering is being done for the purpose of weather modification to combat global warming—without any sort of public disclosure or debate. This, of course, is exactly what you'd say if you were trying to hide genocidal intent: It's for your own good. Ironically, chemtrails seem to have been somewhat successful in blocking out sunlight. "The emergence of the Chemtrails phenomenon coincided with an average 22% drop in sunlight reaching the earth's surface. Even the New York Times recently published a story stating that the 'Globe Grows Darker as Sunshine Diminishes 10% to 37%.'" Incredibly, though, nobody seems to have done the math on this: sunlight is plant food, through the process of photosynthesis. If you shade the earth, you're contributing to world famine. Also, plants take CO<sub>2</sub> out of the atmosphere, replacing it with oxygen. So the more sunlight you block, the more CO<sub>2</sub> you're going to have to deal with.

"What is being sprayed? Hundreds of laboratory tests reveal that the primary components of geoengineering are aluminum and barium. Other components include synthetic polymers, ethylene dibromide, Morgellons disease, viruses, fungi, and bacteria. The toxic metal particulates are rapidly absorbed from the respiratory system and/or the gastrointestinal tract and are deposited in the lungs, muscles, and bone. According to *Medscape*, aluminum accumulation in tissues and organs results in their dysfunction and toxicity. If a significant load exceeds the body's excretory capacity, the excess is deposited in various tissues, including

bone, brain, liver, heart, spleen, and muscle. This accumulation causes morbidity and mortality.

"No living systems use aluminum as part of a biochemical process. It has a tendency to accumulate in the brain and bones. The Material Safety Data Sheet for aluminum states that the most notable symptoms of aluminum poisoning are diminishing intellectual function, forgetfulness, inability to concentrate and, in extreme cases, full-blown dementia and Alzheimer's. Its toxicity also causes bone softening and bone mass loss, kidney and other soft tissue damage and, in large enough doses, can cause cardiac arrest. Additionally, aluminum is strongly linked to Autism.

"Barium is toxic to humans and animals and causes a dramatic drop in potassium levels in the body. For this reason (and others), barium is known to considerably increase the frequency of heart attacks in persons 65 years and older.

"Sulphur is another toxin associated with geoengineering. Laboratory tests with animals indicate that sulphur can cause serious vascular damage in veins of the brains, the heart and the kidneys. These tests also indicate that certain forms of sulfur can cause fetal damage and congenital defects. Mothers can even carry sulfur poisoning over to their children through their milk. Sulphur can also damage the internal enzyme systems of animals."

So Adams logically concludes, "The *purpose* of geoengineering is injury and death.... Abundant evidence proves that a criminal global elite has been obsessed with eugenics and its modern-day incarnation, population control, for well over 100 years and that the goal of global population reduction remains a priority. Chemtrails and geoengineering are clearly part of the death agenda and represent the equivalent of spraying ants to death with a can of slow-acting poison. However, in this case, the poison is mega-tons of particulate aluminum, barium, and other toxins consistently sprayed from above, the can is a jet plane, and the target is humans. Scientific studies prove that breathing particulate matter associated with chemtrails over time will harm and kill us."

It isn't merely that the aerosolized materials in chemtrails themselves are toxic. It's also the *size* of the particulates. Basically, what's being emitted here is purposely man-made air pollution. Adams traces the diseases caused by such particulates, drawing compelling links between chemtrails and lung cancer (and other respiratory or pulmonary diseases like bronchitis and asthma), coronary disease and stroke-inducing blood clots, Alzheimer's, Parkinson's, and Lou Gehrig's diseases, and Autism Spectrum Disorder (whose epidemic proportions we've tracked elsewhere—the usual suspects being GMOs and vaccinations). "Investigative journalist and author of *Chemtrails Confirmed*, William Thomas, found that chemtrails inflict eye infections, nosebleeds, skin sores, muscle pain,

chronic exhaustion, weakened immunity, acute asthma and allergies, short-term memory loss and heart attacks on people in more than a dozen countries."

So Adams has no choice but to label chemtrail geoengineering "Harm with Malice Aforethought." His thesis: nobody could be stupid enough to spend billions of dollars perpetrating such a scheme without *knowing* that the primary effect would be physical harm to people, animals, and plants. "The actions of those involved with geoengineering demonstrate an *intent* to do harm." The following quotes reveal why he thinks so:

"Geoengineer advocate Ken Calderia, an atmospheric scientist who works at the Carnegie Institution for Science's Department of Global Ecology, proposes spraying chemicals in our skies to 'blunt the worst effects of global warming.' But when confronted at a geoengineering debate in Berkeley, he was forced to admit there has been no global warming for at least 17 years ('it has leveled off') and that when he worked at a nuclear weapons lab, he discussed poisoning the sky, 'putting pathogens in a cloud' to 'rain down on your enemy and do chemical and germ warfare.'

"Obama's top science and technology advisor John P. Holdren co-authored a book, *Ecoscience*, in which he advocated the formation of a 'planetary regime' that would use a 'global police force' to enforce totalitarian measures of population control, including forced abortions, mass sterilization programs conducted via the food and water supply, as well as mandatory bodily implants that would prevent couples from having children. Holdren also proposed geoengineering at a 2007 Goldman Sachs Conference. Perhaps Holdren sees geoengineering as the best method to cull humans into a 'sustainable' population.

"Ted Gunderson, former chief of the Los Angeles division of the FBI, demanded that geoengineering be stopped and referred to it as 'death dumps... genocide, poison, and murder. This element within our society that is doing this must be stopped. This is a crime against humanity.' Gunderson also notes that the geoengineering pilots are poisoning themselves and their families. According to one chemtrail pilot, stopping geoengineering may be our last chance to save humanity from psychopathic genocidal maniacs.

Who are these geoengineers? Several names pop up over and over again in the literature...

David Keith is a professor at Harvard University and advocate of Geoengineering.... Keith's infamous quote on the dangers of geoengineering is: 'And by the way, it's not really a moral hazard, it's more like free-riding on our grandkids.' The *Washington Post* (October 30, 2013) quotes Keith: "Solar radiation management, or solar geoengineering, involve cooling the earth by reflecting away some sunlight. All of these ideas are scientifically quite similar; they're all risky; they all act very fast; and they're all cheap.... These technologies appear to provide a pathway by which we could substantially reduce climate [warming] risks over the next half-century. That means reducing the risks of sea-level rise, reducing the risks of stress for the crops of people in the poorest and hottest parts of the world." Although Keith's approach seems generally thoughtful and balanced, he doesn't seem to comprehend that (1) the earth *isn't* actually heating up, and (2) crops require unobstructed sunlight in order to grow and thrive.

Back to Dr. Adams' article: "Steve Rayner is a Professor of Science and Civilization at the University of Oxford. He is one of the co-directors of the Oxford Geoengineering Program. Steve was previously a member of the Royal Society Working Group on Geoengineering. The Royal Society is an organization made up of renowned eco-fascists and depopulation fanatics. It released a report calling for the 'stabilization' of global population and reductions in consumption in developed countries. In the report, renowned population alarmist and *Ecoscience* co-author, Professor Paul Ehrlich, called for a 'move to population shrinkage as humanely and as rapidly as possible." How, precisely, does one humanely shrink a living human population? Any way you slice it, it's a call for death on a massive scale, with all of its attendant grief and pain. There's nothing humane about purposely causing or contributing to the death of another human being, much less billions of us.

"David Victor is a professor at Stanford University and the University of California, San Diego. He also directed the science and technology program at the Council on Foreign Relations in New York, where he directed the Council's task force on energy and was senior adviser to the task force on climate change. The Council on Foreign Relations is in essence the not-so-secret acting government of the United States, and in the view of many researchers, a powerful global crime syndicate that controls the mainstream media." If you'll recall, we discussed the CFR at length in Chapter 14: "Mystery Babylon."

Microsoft billionaire Bill Gates is on record as being in favor of depopulating the planet by any and all possible means, and he's willing to support his agenda with large sums of money. His name is ubiquitous in this context. "Gates funded a Harvard University project, in which sun-reflecting particles were sprayed from a balloon at an altitude of 80,000 feet above Fort Sumner, New Mexico. In 2012, Gates threw his financial muscle behind manipulating the earth's climate via geoengineering. Bill Gates is a radical eugenicist. In addition to sponsoring vaccine research to reduce the population, the Bill and Melinda Gates Foundation supports Planned Parenthood. In 2000, the Bill and Melinda Gates Foundation provided the International Planned Parenthood Federation (IPPF) \$8,800,000. In its annual report, Planned Parenthood boasted that its affiliates around the nation performed 333,964 life terminating abortions during 2010-11, up from 332,278 pre-born deaths in 2009, the previous yearly record. The latest number represents an abortion performed every 94 seconds." His own three children are exempt from the genocide, I presume.

"Bill Gates and his globalist friends clearly have plans to reduce the world's population. It must also be noted that The Bill & Melinda Gates Foundation purchased 500,000 shares in Monsanto in 2010, valued at more than \$23 million. This is significant because Monsanto, known as one of the world's most unethical companies, released an aluminum-resistant seed which is genetically modified to tolerate aluminum in high levels in the soil. The primary ingredients of chemtrails are aluminum and barium—what a coincidence!

An October 2, 2012 article by Cassandra Anderson on *MorphCity.com* gives us more information on Gates' involvement. Remember David Keith? "Keith manages a multimillion dollar research fund for Bill Gates. Gates has also gathered a team of scientist lobbyists that have been asking governments for hand-outs to for their climate manipulation experiments with taxpayer money.... Geoengineering can alter rain cycles leading to droughts and famine that could result in billions of deaths! Therefore, Bill Gates appears to be using his concern over global warming to cloak his real intent of controlling weather and/or depopulation."

She points out the counterintuitive fact that "Geo-engineering can actually *cause* global warming when tampering with clouds in the upper atmosphere/stratosphere. The Gates-funded scientist lobbyists propose spraying sulfur dioxide 30 miles above Earth, and a New Mexico experiment proposes spraying 15 miles above surface.... Both experiments propose dumping  $SO_2$  in the upper atmosphere/stratosphere, creating a heat-trapping blanket that would theoretically increase warming. This is the opposite of Gates' stated goal to cool the planet.... Given that the EPA claims that sulfur dioxide (SO<sub>2</sub>) emissions cause health problems and early death and that they are shuttering coal plants over emissions, you may be wondering why the EPA isn't screaming bloody murder over Gates' SO2 aerosol-spraying experiments. The answer can be found on the EPA's own website where they promote giving regulatory power over geoengineering/chemtrails to the UN and/or developed countries that fund the programs. The EPA is abdicating power to international interests. Bill Gates' failure to address the EPA's dire warnings of the dangers of SO<sub>2</sub> is proof that he is aware that the EPA's claims are grossly overstated, or that he doesn't really care about the environment and has ulterior motives.... Geoengineering is either a risky adventure to test ignorant theories or a scheme to control weather, water and food supplies. Bill Gates' record as a depopulation enthusiast supports the

argument that geoengineering is a weather domination scheme that may be used as a weapon threatening the lives of billions of people.

And you thought he just made software.

Dr. Adams continues: "As well as Gates, other wealthy individuals including Sir Richard Branson, tar sands magnate Murray Edwards, and the co-founder of Skype, Niklas Zennström, have funded a series of reports into future use of the geoengineering technology. Branson, who has frequently called for geoengineering to combat climate change, helped fund the Royal Society's inquiry into solar radiation management last year through his Carbon War Room charity.... Geoengineering appears to be one to the elites' primary methods of culling the human herd.

"In addition to humans, the natural world around us dies due to chemtrail fallout because soil and fresh water sources are also being contaminated with aluminum and barium. Chemtrails are prevalent at Mount Shasta, California, where aluminum in pond water tested 24,000 times normal and snowdrifts at 8,000 feet tested 122,200 times normal. Soil around a house (exposed to the air) in Northern California contained 3,000 times more aluminum than soil tested from under the house (not exposed to the air).

"Companies like Monsanto are engaged in planetary engineering, which includes bioremediation measures to bring us patented genetically engineered trees and crops, such as GMO corn, soy, and sugar beets that are in 90% of processed foods and strongly linked to numerous diseases including cancer. As discussed earlier, Monsanto has already developed an aluminum resistance gene for profit....

So far, most of the world's governments are sticking to their lame "contrails" explanation, but the geoengineering cover-up is no longer universal. *ConsciousLifeNews.com* (October 7, 2012) reported, "As reported by the Swedish paper *Katrineholms Kuriren*, [Swedish Green Party leader Pernilla] Hagberg, the first major political leader to come forward on the issue, has openly admitted that these unusual cloud trails, which fail to dissipate like normal contrails do, are actually a toxic mix of chemicals, viruses, and metals that she has collectively referred to as "chemtrails." According to Hagberg, the sprayings are a joint endeavor by the U.S. Central Intelligence Agency (CIA) and the U.S. National Security Agency (NSA), as well as the Swedish government in her own country, to modify atmospheric conditions via deliberate aerosol spraying efforts. And included in this "dangerous" mix of aerosols are various chemical components, viruses and viral fragments, and metals such as aluminum and barium, which have already been shown to be accumulating in water supplies and soils around the world."

Adams notes, "The only national governments to admit to chemtrails are Germany and Sweden. Why does the U.S. government deny the obvious if its intentions are benevolent? Why deny what is seen by millions of Americans each day? Why deny what has been photographed, filmed, and documented millions of times?" And when the chemtrail scheme is finally acknowledged, it is invariably said to be intended as a defense against global warming (something that isn't actually happening, and was invented as a straw-man so CO<sub>2</sub> could be villainized—a ploy designed to bring about the globalist agenda). Not only is the "cool-the-earth" explanation not logical or fact-based, it isn't even plausible.

But what *is* plausible is Dr. Adams' conclusion on the matter: "The evidence demonstrates that the primary purpose of the public nuisance of geoengineering is to cause bodily injury and premature death with malice aforethought."

*Enough already*. As in the title of one of my favorite old movies put it, "It's a Mad, Mad, Mad, Mad World." And our scientists, it would appear, are, for all their intelligence and education, the looniest of the lot—willing to bury their heads in the sand and destroy the whole fragile and beautiful planet upon which we live, if there's a paycheck in it.

So what the heck; let's give the last word to perhaps the maddest mad scientist of all, our old friend Steven Hawking. *Yahoo* reports, "In a preface to a new book called 'Starmus'—a collection of lectures gives by famous scientists and astronomers—Hawking worried that the Higgs Boson might become unstable. He wrote: 'The Higgs potential has the worrisome feature that it might become metastable at energies above 100bn gigaelectronvolts (GeV).' What might this lead to? Hawkins explained: 'This could mean that the universe could undergo catastrophic vacuum decay, with a bubble of the true vacuum expanding at the speed of light. This could happen at any time and we wouldn't see it coming....' However, given that he believes we only have perhaps 1,000 years left on Earth anyway, it's as well to explore every possible scenario, before the robots and algorithms secure minds of their own and, as their first step, eliminate us all."

No, really: this might actually *be* his "last word." The revered physicist has a motor neuron disease related to amyotrophic lateral sclerosis (ALS). He must communicate through a speech-generating device. But lately, he got it into his brilliant mind to boycott Israel, throwing his considerable prestige behind the Palestinian cause. There's only one problem: The speech device which enables Hawking to communicate with the world (according to the *DailyMail*) is a computer Intel Core i7-based communication system.

Which runs on a chip designed by Israel.

Madness.

## Appendix 11 Secular Chronology Confirmation

How current trends corroborate the Bible's revealed timeline

## THE "FAITH" FACTOR

We all "believe" something we can't empirically prove. It has always been that way. The phenomenon of faith has permeated human society since the dawn of history. I'm not talking about "religion" in the commonly understood sense, necessarily, but merely a worldview, a philosophical or cultural outlook based not on real, demonstrable circumstances, but rather on a shared opinion of "how things are" in matters beyond our experiential knowledge.

"What we believe" can be right or wrong, true or false, but as long as a society is relatively homogenous in its beliefs, things *within that society* tend to run smoothly, all other things being equal. For example, there was a time (I'm told) when "everybody" in Europe believed the sun revolved around the Earth. They were wrong, but as long as nobody challenged this assertion, society (at least as far as astronomical opinions and their philosophical ramifications were concerned) remained peaceful. Then, in 1543, Copernicus suggested that Earth and the other planets actually circled the sun. The powerful Roman Catholic church, which had been pushing the terra-centric model for centuries (due to their own philosophical proclivities, not because of anything they'd found in Scripture) angrily forbade his book and suppressed his arguments. Their *belief system* had been challenged, and they found it uncomfortable and threatening, even though they were wrong.

An insightful commentary on unfounded belief systems was included in Jonathan Swift's satire, *Gulliver's Travels*. The hero, Gulliver, finds himself in the land of Lilliput (where everyone is much smaller than he is—in a lot of ways). There he encounters a raging controversy concerning which end of a soft-boiled egg should be broken into. The Big-Endians (those "traditionalists" who believe the egg should be approached from the big end) are at war with the Little-Endians (whose "reformed" belief dictates that eggs must be broken instead on the pointy end). The Lilliputian religion, meanwhile, only says that an egg should be broken on the *convenient* end. It's all a tongue-in-cheek satirical commentary on the practically non-existent doctrinal differences between the warring Roman Catholic Church and the Protestant Church of England in the 18<sup>th</sup> century. We all tend to "believe" what our society accepts as true—at least at first. But there are two prophetic texts that come to mind that point out why the "faith factor" will become so significant during the Last Days. First is what was revealed to Daniel. "But you, Daniel, shut up the words, and seal the book until the time of the end; many shall run to and fro, and knowledge shall increase." (Daniel 12:4) And in the Olivet Discourse, Yahshua says, "You will hear of wars and rumors of wars. See that you are not troubled; for all these things must come to pass, but the end is not yet. For nation will rise against nation, and kingdom against kingdom." (Matthew 24:6-7) *Why* are there to be wars and rumors of war (more than usual)? It's because people are becoming more mobile—"running to and fro." That is to say, their *belief systems* are no longer contained and compartmentalized. Instead, they're rubbing up against each other, causing friction and strife.

Please note: I still haven't said anything about who's right and who's not. I am merely exploring what happens when worlds collide—when previously insulated cultures (united by a common belief system, more or less) are compelled to confront each other. As our world becomes more connected, more mobile, and more aware (as Daniel's prophecy predicted), the differences between cultures (for better or for worse) will be exacerbated. If we all believed exactly the same thing, *even if it were wrong*, the world might be a more peaceful place. But then again, since we are creatures endowed with free will, a completely uniform culture is impossible to maintain in the long term. I'll offer a couple of examples:

(1) Two hundred years ago America was a somewhat homogeneous society nominally Christian in its traditions and conservative in its political outlook. Liberty, opportunity, and optimism were what united us (given a few blind spots, like slavery and monetary policy). Today, however, half a dozen "cultures" exist side by side in our land—opportunists, parasites, hedonists, and narcissists live side by side with patriots, entrepreneurs, and the Judeo-Christian faithful. (These categories are not mutually exclusive, of course, nor is the list remotely comprehensive.) Because the points of friction are unsettling, our personal societies tend to grow smaller and more restricted as the world we perceive grows larger. We no longer know everybody in town (as we might have two hundred years ago). Rather, our personal circle of contacts is extremely limited—and it's usually based on our shared belief systems, not our physical proximity to others. That is, people of faith tend to congregate with one another, as do gang bangers, liberal-progressives, bikers, yuppies, sports fans, nerds-you get the picture. Even within artificial social constructs like the workplace, school, or neighborhoods, we all tend to seek out like minded companions.

(2) Seventh century Islam ran roughshod over the land of its birth, the Arabian Peninsula. Then, over the next century, it set about the religious conquest of North Africa, the Middle East, and India. At the point of the sword (okay, *scimitar*) they

offered everyone they met three choices: convert to Islam, pay the onerous *jizya* tax, or die. But eventually the movement degenerated into a belligerent habit, less about spreading Islam and more about merely grabbing land and booty, in the mode of Atilla the Hun or Genghis Kahn. Why? Because Muhammad had forbidden his jihadists to take the Qur'an with them. Booty and blood lust are motivations common to unregenerate man. Without a *basis of faith*—the Qur'an—the Islamic belief system (i.e., forcing people to convert to Islam at the point of a sword, and killing or enslaving everyone who stood in your way) could not be maintained. There were always Muslim pirates and warlords, but they were driven more by their common sinful human natures than by their religious beliefs, though Islam gave them "cover." And the peoples they subjugated tended to fall into "hypocritical" (i.e., conscience based) modes of religious practice, not bloodthirsty jihadism.

So until the Qur'an was (like the Bible) given wider exposure with the advent of the printing press, and especially since it was "rediscovered" in the early 20<sup>th</sup> century, Islam was a stagnant religion, not unlike the paganism it had replaced in Arabia. But today, with Muslims fleeing their cesspool homelands in droves (because, ironically enough, Qur'an-sanctioned murder, rape, cruelty, plunder, inbreeding, and sloth are endemic there—as are the poverty and misery that inevitably follow), they are once again creating friction (like #20 grit sandpaper) against everyone with whom they come in contact—even other Muslims with whom they don't agree about every nuance of Islamic doctrine and practice. Their very proximity to people of other belief systems causes strife, fear, and bad blood, so they tend to congregate together, refusing to assimilate into the societies to which they've fled, repelled by their belief system like the south end of a magnet. The fact that their birth rates are several times that of Europeans and North Americans only complicates (and accelerates) the problem.

The glue that holds our "micro-societies" together, then, is *what we believe*. And in this day and age, physical proximity is only marginally significant. I have cyber-friends in Nigeria and Brazil with whom I have more in common (and talk with more frequently) than I do my next door neighbor here in Virginia. One could argue that *common interest* is what attracts us to one another, but (for myself) I find those bonds to be less than compelling. For example, I'm a lifelong musician, but the only musicians I find myself wanting to play with are those who share my *belief system*. (The reason I didn't "turn pro" in my early twenties was basically that I didn't like smoky bars—where many musicians' livelihoods must be earned.) Meanwhile, my neighbor is a car buff, with a garage full of beautifully restored classic Corvettes, and I too am a car enthusiast of sorts (to the extent I can afford to be—which isn't much). But since we share no core beliefs (that I know of) our relationship is confined to trading cordial "hellos" when we happen to see each other. But where do these beliefs come from? I would love to be able to tell you that they emerge from thoughtful consideration of a range of philosophical options, or from careful study of competing foundational documents (ranging from the Communist or Illuminati Manifestoes to the American Constitution, or from the Qur'an or Rig Veda to the Bible). But it's just not true. Most people—the vast majority—simply pick up on what their parents, peers, and professors seem to believe and swallow it whole, never straying very far from where they began. We tend to think the same way our families and friends do, eat the same kind of food, vote the same party, and worship the same god. The apple doesn't usually fall too far from the tree, and when it rolls, it rolls downhill, toward the lowest common denominator.

Why? Because reassessing our foundational beliefs requires serious thought, and rejecting our traditions can be a painful endeavor. (I speak from experience.) If we're honest with ourselves, something fundamentally wrong can usually be found within them—something either blatantly false or fatally flawed. So most of us deflect, rationalize, make excuses, or simply ignore those nagging and uncomfortable components of our cultural fabric that we once "believed in." In the end, we simply disregard the uncomfortable bits—until our beliefs can best be stated in phrases like, "I believe I'll have another beer."

But not everyone wallows forever in lukewarm mediocrity. Some of us awaken from our cultural stupor to discover (or at least *conclude*) that what our parents and peers "believe in" is—to one extent or another—nothing more than groundless tradition. This can be either a good thing or a bad one, depending upon the *real* basis (and not the mere cultural lowest common denominator) of one's belief system.

This "basis of belief" is the subject of this appendix. *What we believe* determines what we do, how we act, what we defend or attack, and who we consider allies or adversaries. The faith factor—not what we *know*, but what we believe to be true (or merely *wish* to be true)—separates the world into warring factions. Formal religious differences are only the tip of the iceberg, however—mere outward manifestations of more fundamental philosophical proclivities, often built on generations of cultural conditioning.

My guess is that there is one issue that underpins *everyone*'s belief system (whatever it is). It is the one thing no man can, in any empirical sense, explain, explore, or escape. I'm speaking, of course, of *death*. We must all face it, sooner or later, whether or not we want to, and whether or not we're prepared for it. And what we come to believe about death will have a visceral impact on how we live our lives. Is there an afterlife? If so, what is it like? Is there a heaven and/or a hell? Could there be a Muslim-style paradise populated with amorous virgins, flowing with rivers of wine—contrasted with hell-fire, whose denizens are roasted

"alive" on a spit turned by god himself, who are given thorns to eat and boiling water to drink? If there is an afterlife, how may one enter the blessed state and avoid the cursed one? Is there such a thing as a ghost—the disembodied spirit of the departed walking among us? Do our souls get recycled—forcing us to "come back" as something else? Or is there simply *nothing* after we die—as John Lennon hopefully put it, "No hell below us, above us only sky"?

Whether or not we realize it, our personal answers to these questions affect everything we do, to one extent or another. Law and culturally imposed morality tend to temper our responses to life's curve balls, of course. But what would we do in the face of danger, disappointment, or injustice, were we not hampered by conscience and custom (or the threat of incarceration)? Whatever it is must be shaped by what we *believe* about death and its potential aftermath. And logic would suggest that belief in an afterlife presupposes belief in a deity of some sort—Someone who is eligible and worthy to make judgment calls about how we have lived our lives, Someone competent to define good and evil.

That, in turn, raises the issue of salvation, of atonement for sin. If a Creator-Deity exists who is qualified to assess the moral performance of men, and if He has decreed the existence of an afterlife of one sort or another, then what must one do to attain a "good" afterlife ("heaven," so to speak) or be saved from a bad one (what we might call "hell")? It should be apparent, of course, that that's what it would take: a divine decree. Conversely, if God does *not* exist, there can be no afterlife (good *or* bad), nor objective moral standards, nor any rational basis for law or justice. But if there is no God, it's awfully hard to account for the human conscience, our innate, universal knowledge that there actually is such a thing as right and wrong. For that matter, life itself—never mind the afterlife—is impossible to adequately explain without recourse to a holy (not to mention *intelligent*) God—that is, One who is external to, and separate from, His own creation, the prototypical "First Cause."

The bottom line is that what we *believe*, whether or not it's true, shapes how we behave in this world. So think beyond the Christian conception of heaven and hell. Most of the world does not relate to whatever it is that motivates us. They respond to entirely different kinds of "carrots" and "sticks."

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It's a moving target. Two thousand years ago, much of the world was pagan, of one stripe or another. That is, the remnants of the original Babylonian mystery religion of Nimrod, Semiramis, and Tammuz were still very much in evidence, assuming different forms, rites, and nomenclature in widely scattered places.

Today, those religious traditions have largely gone underground, buried (in very different ways) mostly within Catholic-style Christianity, Hinduism, and their respective cultural spinoffs. It should also be noted that much of Islam's religious ritual practice was lifted wholesale from the Arabian pagan culture in which Muhammad was raised, notwithstanding their claims of monotheism. The worship of the black stone, circumambulating the Ka'aba, ritually stoning the devil, the crescent moon symbol (see Judges 8:21, 26), Ashura Day mutilation, and much more are *pagan* practices. It is abundantly clear why Yahweh made a point of separating Israel from the rest of the world, evicting the pagans from the Land of Promise so His Messiah could enter the world in a culture that wasn't *completely* overrun by satanic counterfeit religion.

Today, the religious makeup of the world is considerably more splintered. It would appear that the "broad highway that leads to destruction" has more "lanes" than it used to. Instead of wall-to-wall paganism (including polytheism and pantheism), both Christianity and Islam have made considerable inroads. *PewForum.org* (December 18, 2012) provides the stats on "The Global Religious Landscape." They report, "Worldwide, more than eight-in-ten people identify with a religious group. A comprehensive demographic study of more than 230 countries and territories conducted by the Pew Research Center's Forum on Religion & Public Life estimates that there are 5.8 billion religiously affiliated adults and children around the globe, representing 84% of the 2010 world population of 6.9 billion." Although the stats are a few years old now, they scale up pretty well as percentages.

"The demographic study—based on analysis of more than 2,500 censuses, surveys and population registers—finds 2.2 billion Christians (32% of the world's population), 1.6 billion Muslims (23%), 1 billion Hindus (15%), nearly 500 million Buddhists (7%) and 14 million Jews (0.2%) around the world as of 2010." *Jews?* It's amazing that so few Jews could cast such a large shadow over the religious landscape of the earth (or it would be, were it not for Yahweh's involvement and promises). There are more Mormons (15 million) or Sikhs (24 million) than Jews worldwide, yet their "significance quotient" is dwarfed by Israel's. "In addition, more than 400 million people (6%) practice various folk or traditional religions, including African traditional religions, Chinese folk religions, Native American religions and Australian aboriginal religions. An estimated 58 million people—slightly less than 1% of the global population belong to other religions, including the Baha'i faith, Jainism, Sikhism, Shintoism, Taoism, Tenrikyo, Wicca and Zoroastrianism, to mention just a few."

The study "also finds that roughly one-in-six people around the globe (1.1 billion, or 16%) have no religious affiliation. This makes the unaffiliated the third-largest religious group worldwide, behind Christians and Muslims, and

about equal in size to the world's Catholic population. Surveys indicate that many of the unaffiliated hold some religious or spiritual beliefs (such as belief in God or a universal spirit) even though they do not identify with a particular faith."

But labels are clumsy tools. The way I see it, the religions of the world are now divided (very roughly) into five separate groups—four of them in a virtual dead heat for the demographic lead. Using the CIA's *World Factbook* as a guide (which roughly parallels the findings of the Pew Forum), we can perceive that these four broad "religious traditions" each comprise about 21-22% of the world's populace. I have grouped these four (painting with a very broad brush) according to their significant defining characteristics. That is, they share a great deal in common, though they may be called by different names, and though strife and suspicion are commonplace within each group.

They are: (1) Eastern religious philosophies—Hinduism, Buddhism, Jainism, Sikhism, Taoism, Shinto, Confucianism, Baha'i, Zoroastrianism, etc. (2) Atheism, Agnosticism, Secular Humanism, and non-religious people (whose beliefs *define* them as a faith-based group, despite their intentions). (3) Islam—Sunni (including Wahabism), Shia (including the Druze), Sufi, Ahmadiyya, Kharijite, and other sects. And (4) Religious (i.e., liturgical) Christianity—Roman Catholicism, Eastern Orthodox churches, Anglicans, etc. The fifth category (perhaps 14% of the world's population) is a catch-all of everyone who's left—Evangelical (fundamentalist) Christianity, mainline Protestant Denominations (apostate or otherwise), quasi-Christian cults/sects, Judaism (including Messianic Judaism), folk religions (African, Native American, Asian, Australian Aboriginal, etc.), Satanists, pagans, and Wicca, etc.

One interesting fact that emerges when we look at the data is that most religious traditions are localized. That is, they tend to remain (or disperse from) where the religion began, the largest of these "localities" being Islam, which now dominates the Middle East, North Africa, and parts of South Asia. For all the noise and pain they cause, they are still minorities—though rapidly growing—in much of the rest of the world. Recent projections see them dominating Europe by about 2030, due to a far higher birth rate than the peoples they are displacing. (If nothing else, the *timeframe* should catch our attention.) "Eastern" religions (Hinduism, Buddhism, etc.) tend to remain concentrated in the Far East—India and Southern and Eastern Asia. But two groups (and *only* two) are spread rather homogeneously throughout the world—Christians and Jews. (It's worth noting that being Jewish is not a religion *per se*, but almost everyone who practices the religion of Judaism is Jewish—that is, a biological descendant of Israel. A significant number of biological Jews are actually practicing atheists.)

The *Pew Forum* article cited above reports: "The geographic distribution of religious groups varies considerably. Several religious groups are heavily

concentrated in the Asia-Pacific region, including the vast majority of Hindus (99%), Buddhists (99%), adherents of folk or traditional religions (90%) and members of other world religions (89%). Three-quarters of the religiously unaffiliated (76%) also live in the massive and populous Asia-Pacific region. Indeed, the number of religiously unaffiliated people in China alone (about 700 million) is more than twice the total population of the United States. The Asia-Pacific region also is home to most of the world's Muslims (62%). About 20% of Muslims live in the Middle East and North Africa, and nearly 16% reside in sub-Saharan Africa. Of the major religious groups covered in this study, Christians are the most evenly dispersed. Roughly equal numbers of Christians live in Europe (26%), Latin America and the Caribbean (24%) and sub-Saharan Africa (24%)."

In the case of Jewish demographics, this worldwide scattering is a grim but inevitable fulfillment of Biblical prophecy. Yahweh had promised Israel, "And after all this, if you do not obey Me, but walk contrary to Me, then I also will walk contrary to you in fury.... I will scatter you among the nations and draw out a sword after you." (Leviticus 26:27-28, 33) But He also promised to bring them back to the Land (a process that has already begun) when His purpose suited Him: "Remember, I pray, the word that You commanded Your servant Moses, saying, 'If you are unfaithful, I will scatter you among the nations; but if you return to Me, and keep My commandments and do them, though some of you were cast out to the farthest part of the heavens, yet I will gather them from there, and bring them to the place which I have chosen as a dwelling for My name.'" (Nehemiah 1:8-9) So scattered they are, though their oft-promised repatriation has begun.

But Christianity wasn't driven abroad by God's wrath (as much as we had it coming on occasion), nor was it spread throughout the world via the sword of conquest, as was Islam. (The possible exception to that rule was the Roman Catholic role in conquering Latin America—a corollary to the Spanish and Portuguese lust for gold.) But mostly, the Gospel proliferated simply because truth and love are attractive, given an honest chance to take root. Ironically, the Church tends to spread the fastest when it is suffering persecution, and it loses its power as a force for good when it becomes politically strong.

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Let us, then, explore the predominant belief systems of our present world (whether "religious" or not), with an eye toward discovering what (if any) effect their doctrines, practices, and core beliefs might have on the timetable of the Last Days. (That is, after all, the overarching subject of all of these appendices exploring what is happening in today's world that seems to have a bearing upon the revealed Biblical timeline.) What motivates their adherents? How can their views on sin, atonement, death, and the afterlife be expected to shape their actions—especially with regard to people of other faiths or proclivities? Is it conceivable that shifting religious demographics might be capable of threatening the very stability of planet Earth? Could increasing friction between leading belief systems result in a scenario in which the prophesied Antichrist (and his vaunted one-world religion) could rise to world dominance by popular acclaim?

Remember, our "working theory" is that Christ's Millennial kingdom—the "seventh day" fulfilling Yahweh's Sabbath Principle—has been scheduled by God to begin on the Feast of Tabernacles, 2033. That means that the Tribulation, Israel's seventieth seven-year period as outlined in the remarkable Daniel 9:24-27 prophecy, will commence in the fall of 2026. If the world's population continues to grow at its present pace—a billion souls being added every twelve years or so—we can expect our numbers to reach about nine billion by that time, putting serious stress on the environment, food and water supplies, and scores of other factors we've already explored—and one we haven't: the collective patience of the human race. The faith factor, to my mind, could be the straw that breaks the proverbial camel's back.

The remainder of this appendix will be organized along the lines of the pattern of belief-system demographics I noted above. To recap, four general *categories* of faith-based observance (even if there is no overt "religious ritual" involved) are rather evenly divided in today's world—each of them comprising 21-22% of the total world's population. They are, categorized in broad terms, (1) eastern religious philosophies, (2) godless belief systems, (3) Islam, and (4) "liturgical" Christianity. The only other numerically significant group is (5) Evangelical (Bible-reliant) Christianity, whose population (together with its ally, Judaism) I would estimate at somewhat less than half of the world's remaining 14%—but still adding up to hundreds of millions of us.

Forgive the overly broad brush, but I would characterize these five "faiths" (in the order listed) as the Religions of (1) Despair, (2) Denial, (3) Death, (4) Compromise, and (5) Hope. When the dust has cleared, they will all be revealed for what they are: some as villains, and some as victims. Only one "faith" will be vindicated and victorious—the one that reverse Yahweh, the true and living God.

## The Religion of Despair

Eastern religions (or in most cases, religious *philosophies*) would probably be horrified to find themselves all lumped together like I'm doing here, because they disagree about so much. They range from pantheistic to polytheistic to monotheistic to atheistic. Those originating in India have historic roots that seem to lie mostly within Hinduism, one of the oldest religions on earth, but like a plethora of Christian denominations, they have one by one spun off into separate and distinct entities in response to one or more issues that their founders found unacceptable in the "parent" faith.

There are also a number of smaller sects roughly categorized as "East Asian religions," focused on the concept of "Tao," the flow of the universe—not "God" in the Judeo-Christian sense, but a nebulous "force" behind the natural order, the primordial essence or fundamental nature of the universe. The one thing all these religious philosophies have in common is an unwavering emphasis on human works to attain spiritual "salvation" (itself a vague and ill-defined concept). Variously described as "the way," "the path," or "the route," the Tao is "the understanding or intuitive knowing of 'life' or present awareness which cannot be grasped full-heartedly as just a concept but known nonetheless." (*Wikipedia*) And no, I don't have the faintest clue what that means. Something tells me its practitioners don't either.

In any case, it is not my purpose here to catalog and explain the thinking behind each and every eastern religion. I merely want to explore, in broad strokes, how the major eastern religions approach the issues of sin, death, and salvation, hoping to shed some light on how these beliefs might affect their roles in the coming decades.

Let us begin with the soteriological strategies of the largest and oldest of these faiths, Hinduism, whose history may extend (depending upon whom you consult) almost as far back as the age of Abraham. Hindus are aware of the sin/guilt issue, but human effort and the appeasement of the gods (and there are as many as 330 *million* of them) are the only tactics they have in order to achieve "spiritual success." Their idea of *progress* is rather pathetic: it's coming back (i.e., being "reincarnated") in another life as something better, farther up the food chain, so to speak. *Success*, on the other hand, is defined as not coming back at all.

*Evangelical.us* boils the Hindu concept of salvation to its essentials for us: "Salvation for a Hindu is called *Moksha*. *Moksha* is when an enlightened human being is freed from the cycle of life-and-death (the endless cycle of death and reincarnation) and comes into a state of completeness. He then becomes one with God. There are four ways to *Moksha*: 1. The Way of Action: This involves carrying out certain religious ceremonies, duties and rites. The objective is to perform works without regard for personal gain. 2. The Way of Knowledge: This requires using your mind and philosophy to come to a complete comprehension of the universe. 3. The Way of Devotion: Salvation is reached through acts of worship, based upon the love for a God (there are thousands of gods in Hinduism). 4. The Royal Road: The use of meditation and yoga techniques. This method of reaching salvation is typically only used by wandering monks. Each of these ways to salvation in Hinduism requires that a person do certain things. Salvation is through what a Hindu does. It is through human works."

You'll note that it's also through human *thought*: none of their many "gods" actually prescribed these methods; they are merely guesses as to what the gods may find sufficient to appease them. "Becoming one with God" is a virtually meaningless concept—it *sounds* wonderful, but the concept of "deity" in Hinduism is so diffuse and ill-defined, the process can have no objective reality.

It seems to me that, as with so many other religious systems, *what* a Hindu does is generally beneficial. Altruism, knowledge, devotion, and meditation are in themselves all good things. It's *why* they're being done that keeps him in bondage: man is trying to elevate himself—if for no other reason than his gods have failed to tell him what they require, leaving him to speculate. It's ironic in the extreme that the greatest blessing a Hindu can be granted (presumably by his god) is to be released from the endless cycle of birth, death, and reincarnation—in effect, freeing him from the responsibility of worshiping that very god.

In the meantime, who decides whether you'll "come back" as a cockroach or a wealthy and powerful Brahmin? Perhaps it doesn't matter, for these transitions (reincarnations from one kind of creature into another) can be neither proven nor disproven—it's purely a matter of faith, though the faith has no object, no evidence, and no authority to support it. It is merely "what they believe." (For that matter, Christianity is the *only* belief system with an historical, objective basis for its faith in an afterlife—the eyewitness-documented resurrection of Yahshua.)

Jacob N. Kinnard (*patheos.com*) writes, "In the earliest strata of Hinduism, the Vedas, there is very little discussion of the afterlife, and really only a vague notion of salvation. Some texts, such as the Rig Veda, suggest that different people go to different places after they die, but there is little detail regarding the matter. This was simply not the focus of the religion. Rather, the concern was the proper performance of rituals that would keep the gods satisfied, and thus keep the cosmos in order...." Remarkable, isn't it? The responsibility for "keeping the cosmos in order" falls ultimately on the shoulders of Hindu *worshipers*, since failure to sufficiently appease the gods with rituals and sacrifices will presumably result either in the gods proactively punishing them, or worse, losing focus and forgetting to do whatever it is such gods are supposed to be doing to keep the universe running smoothly. It's totally backward (though by no means unique): the gods are dependent on their people.

Later Hindus recognized this fatal flaw, and changed their approach. Kinnard continues: "Some in the Vedic world eventually rejected this sacrificial emphasis and set out to find a new path, a path that would lead to eternal salvation. This path is among the focus of the Upanishads. In these texts, there is much discussion of what happens after death. In a famous passage from the Katha

Upanishad, a sage named Nachiketas wins a boon from the god of death, Yama, and asks the god what happens to humans after they die. Yama at first refuses to answer, and then, after Nachiketas persists, tells the sage that if he wishes to know the answer to this question, he must study the nature of the self, and in the process he will be able to leave both joy and sorrow behind."

In other words, they don't have a clue. Their scriptures don't actually say, and they don't bear divine authority anyway. But because Hindus believe there are 330 million gods, there must be *something* after death. Otherwise, what's the point of trying to appease them in life, since they offer no earthly benefit this side of the grave? My heart aches for a people whose idea of "heaven" is "to leave both joy and sorrow behind." It sounds to me like a recipe for clinical depression—despair on steroids. But since there is so little plausible (or even comprehensible) data to go on, the typical Hindu merely orders his life according to custom and conscience—hoping by so doing to end up positioned better in the next life. If you think about it, it's the ultimate form of selfishness: the welfare of others is never addressed except as a ploy to elevate one's own status in some future life.

Buddhism, a sixth-century B.C. spin-off of Hindusim, prescribes a slightly different path. For the basics, we again consult with *Evangelical.us*. "For a Buddhist, salvation is reaching Nirvana. Nirvana is a transcendental, blissful, spiritual state of nothingness—you become a Buddha." If you're lucky. These are exceedingly rare individuals: there have purportedly been only 28 of them, Guatama Buddha (born sometime between the 6<sup>th</sup> and 4<sup>th</sup> centuries B.C.) being the *most recent*. Most of the others are said to be from "previous universes." (And no, I'm not making this stuff up.)

"To reach Nirvana you must follow the Noble Eightfold Path: 1. Right Understanding: accepting the Four Noble Truths. (The existence of suffering; the cause of suffering; the end of suffering; and the end of pain.) 2. Right Resolve: renounce the pleasures of the body. Change your lifestyle so that you harm no living creatures and have kind thoughts for everyone. 3. Right Speech: do not gossip, lie or slander anyone. 4. Right Action: do not kill, steal or engage in an unlawful sexual act." The *Vinaya* (a 4th century BC Buddhist text), states that male monks are explicitly forbidden from having sexual relations with any of the *four* genders: male, female, *ubhatovyanjañaka* (hermaphrodites) and *paṇḍaka* (transvestite prostitutes)! "5. Right Occupation: avoid working at any job that could harm someone. 6. Right Effort: heroically work to eliminate evil from your life. Through your own effort develop good conduct and a clean mind. 7. Right Contemplation: make yourself aware of your deeds, words and thoughts so that you can be free of desire and sorrow. 8. Right Meditation: train your mind to focus on a single object without wavering so as to develop a calm mind capable of concentration. Following the Noble Eightfold Path requires that a person do the above eight things. Salvation [as in Hinduism] is through what a Buddhist does. It is through human works."

Nirvana is a really depressing goal, if you ask me: *escape from life* is the best you can hope for. The Eightfold Path is a strange mixture of pessimism, fatalism, following one's conscience, and becoming obsessively self-centered. Basically, Buddhism is sort of like Hinduism for atheists with OCD. As with Hinduism, there is quite a bit of overlap with the Biblical concept of what is right and wrong, though in Buddhism there is no god to define these terms. One simply follows his conscience, doing what seems right in his own eyes. Despite the pacifistic veneer, the Buddhist concept of self-denial is not founded on love for one's fellow man. It is simply a pain-avoidance technique. Whereas the Bible advocates that we selfsacrificially invest ourselves in the welfare of others out of a spirit of love, the Buddhist's self-denial is merely designed to enhance his own "enlightenment." It's pure, concentrated self-worship.

Another Hindu spin-off from the Indian subcontinent is Jainism, which is a bit like a very strict variant of Buddhism (though it may be even older). As in Buddhism, no Creator deity is recognized. "Godliness," rather, is defined as the state of having freed one's soul from karma through the attainment of enlightenment (Nirvana). A "god" in Jainism is one who has achieved this state: a *Tirthankara*, of whom there have been quite a few. So "Jainism can be defined as polytheist, monotheist, nontheist, transtheist or atheist, depending on one's definition of God."

"Jainism is the religion of the followers of Mahavira. He is said to be the 24th *Tirthankara*, or the 24th in a line of teachers espousing Jain principles. Jains reject the Vedas and highlight the practice of austerity. Jain faith states that the *jiva*, or soul, can escape the cycle of rebirth and death through strict ethical behavior. When nothing remains but the purity of the *jiva*, that person is called a *jina*, or winner, which is the origin of the term 'Jain.' Karma is viewed as an accumulation that burdens the soul, causing attachment and suffering. *Ahimsa*, or non-violence, is central to Jain faith and practice. It is interpreted very strictly as prohibiting all forms of harm to other living beings. Due to this, Jainism requires a strict vegetarian lifestyle. *Ahimsa* also applies to speaking, as one's words can cause harm and suffering."—*Wikipedia*.

Once again, Jains recognize the awkward disconnect between the perfect ideal and the human condition, dealing with it through human effort—asceticism, nonviolence, and self-control. And once again, their ideal spiritual goal is permanent death—freedom from the presumed cycle of reincarnation. Their numbers are few—only about six million—partially because their peace-loving religion made them sitting ducks for the inroads of Islam, whose belligerent philosophy is exactly the opposite of Jainism.

Sikhism, being monotheistic, is unique as eastern religions go, though it too is a derivative of Hinduism. *Wikipedia* describes it thus: "Sikhism...is founded on the teachings of Guru Nanak Dev.... His views rejected the traditional worship and caste [system] of the Hindu faith. Freedom from reincarnation [the hold-over from Hinduism that is common to all these religions] is tied to remembrance and repetition on one universal God. God is formless and simultaneously in every form. Sikhs believe that there is one universal God who is the ultimate creator, sustainer, and destroyer.... Rituals, religious ceremonies or empty worship are considered of little use, and Sikhs are discouraged from fasting or going on pilgrimages. The tenets of Sikhism include (1) honest living/earning (2) tithing and giving alms, and (3) chanting on God. Sikhism also has a strong warrior tradition [in contrast to the Jains] which arose in defense of religious freedom and human rights from a tyrannical Moghul [i.e., Islamic] occupation of India."

Sikhism strikes me (as an outside observer) as the sort of belief system that could be derived from what Paul described: "What may be known of God is manifest in them, for God has shown it to them. For since the creation of the world His invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead." (Romans 1:19-20) I could be wrong about this, but it seems to me that Sikhism is the purely naturalistic reverence for a God they know nothing about except through observation of the glory of His creation. They see God as having no gender, as being beyond time and space, and without form. Nanak Dev speculated that there could be many worlds upon which God created life. He also opined that God's nature, though beyond human comprehension, is not altogether unknowable. God must be perceived through "the inward eye" (what we'd call the heart of man), and meditation will permit communication between God and man—something we'd call prayer.

Sikhs (literally, "disciples") believe: "There is but one God, and truth is its name! It exists in all creation; it does not fear; it does not hate; it is timeless and universal and self-existent, by the grace of knowledge." A subtle but significant difference between this divine concept and that of the God of the Bible is that Yahweh is not "*in* creation." He is beyond, outside, external to and separate from it—in a word, holy. Other than that, the Sikh God and that of Judeo-Christianity sound very similar indeed—hence my unbounded empathy for them. From what I've seen, the Sikhs seem to be worshiping *Yahweh*—not some god of their own imagination—albeit in total ignorance of His written revelation.

But for all its raw honesty and insight, there is an undercurrent of naiveté here. Sewa Singh Kalsi writes that in Sikhism, "All religious traditions are equally valid and capable of enlightening their followers." Taken to its logical conclusion, this would destroy the very basis of their concept of God, for most religions (especially Islam and Hinduism) worship gods of a completely different nature and description than the one the Sikhs serve—in a word, "Truth." And what about the afterlife? In the absence of divine revelation, Sikhs have come to the conclusion that being in *Satsang* ("True Company"—i.e., the company of the highest truth, a guru, or an assembly of truth seekers) is one of the keys to achieving liberation from the cycles of reincarnation.

Despite these fundamental errors, however, I can't help but feel a warm kinship with the Sikhs. They seem to me (for what it's worth) to be honest seekers after the one true God, and like the Jews, just one small epiphany away from having a real relationship with Yahweh. I pray that Yahweh will open their eyes and bridge that gap during these Last Days.

East Asian religious philosophies (who together number about half a billion adherents, mostly in the Far East) share the concept of *Tao*—meaning the "way" or "path," or as a practical description, "doctrine" or "principle." Tao is described (with typical Eastern religious obfuscation) as "the primordial essence or fundamental nature of the universe.... Tao is not a 'name' for a 'thing' but the underlying natural order of the universe whose ultimate essence is difficult to circumscribe and is likened to silence. The Tao is 'eternally nameless'...and to be distinguished from the countless 'named' things which are considered to be its manifestations, the reality of life before its descriptions of it.... The object of spiritual practice is to 'become one with the *Tao*' (*Tao Te Ching*) or to harmonize one's will with Nature in order to achieve 'effortless action' (*Wu wei*). This involves meditative and moral practices. Important in this respect is the Taoist concept of *De* (virtue)."—*Wikipedia*. Well, I'm glad we got *that* cleared up.

As usual, *Tao*-centered belief systems are based (whether they realize it or not) on the collective conscience Yahweh built into the human race—the innate knowledge that some things are just "right" and some are "wrong," without reference to law, authority, or custom. (This is the universal knowledge that secular humanists try so hard to deny through their mantra of moral relativism.) In that it is external to, though responsible for, the fundamental nature of the universe and the things within it, the Tao concept is, in some ways, descriptive of Yahweh Himself (or at least reverence for Him)—a fact pointed out by C.S. Lewis, one of the most insightful Christian thinkers of the twentieth century. The difference, of course, is that Yahweh presents Himself as a personality, not "eternally nameless," but eternally self-existent—with a name He repeated seven thousand times in the Hebrew Scriptures so we'd never forget it. (Pity our English translations edit it out every single time—*sigh.*) But if one substitutes Tao with the self-revealed name of God, the goals sound quite familiar to Christians—to

become *one* with Yahweh through His Messiah, to be *with* Him, *of* Him, and *in* Him: *Yahweh Te Ching*, so to speak.

The *Tao*, like the god of the Sikhs, seems to be a bit like what you get if you observe nature, deduce through its glory that there must be a Creator God, and build your own religion around your findings-or feelings. Wikipedia reports (without really explaining): "Taoist propriety and ethics places an emphasis on the Three Jewels of the Tao; love, moderation, humility. Taoist theology focuses on doctrines of *wu wei* ('non-action'), spontaneity, humanism, relativism, and emptiness.... Most traditional Chinese Taoists are polytheistic. There are disagreements regarding the proper composition of this pantheon. Popular Taoism typically presents the Jade Emperor as the head deity. Intellectual, or 'elite,' Taoism usually presents Laozi and the Three Pure Ones at the top of the pantheon. Nature and ancestor spirits are common in popular Taoism. But this sort of shamanism is eschewed for an emphasis on internal alchemy among the 'elite' Taoists. Tao itself is rarely an object of worship, being treated more like the Central Asian concept of atman" (the spiritual life principle of the universe, especially when regarded as inherent in the real self of the individual, i.e., a person's soul).

One popular variant on the Taoist theme is Shinto, an animistic folk religion from Japan, considered a Buddhist sect. Shinto literally means "the way of the gods." Its reverence for nature and emphasis on self-mastery reveal its Taoist influence. Another permutation is Confucianism, a complex system of moral, social and political thought, based on the prolific writings of Confucius (551-479 BC), a Chinese teacher, editor, politician, and philosopher, whose ethical system focused on familial duty, loyalty, and being humane—once again, little more than a codification of what Yahweh placed within each one of us in the form of a conscience—the innate sense of right and wrong.

Taoists, then, seem to sense that—based on what they observe in nature and feel in their souls—there *must be* a God of some sort. They don't know who He is, what He has done, or what He requires of us, and they disagree as to His fundamental nature. And yet their recognition of His existence encourages them to heed their consciences, preferring love to hatred, moderation to excess, humility to pride, peace to war, and harmony with nature to environmental rapine. Their incomplete knowledge of God, however, leads them into error and inconsistency, and it makes them vulnerable to the aggression of Islam and the encroachment of Atheism.

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Whichever one of these myriad forms of Eastern religious philosophy one embraces, the bottom line is the same: though you are assured that an afterlife exists, there is no real hope for you beyond this life. At one level or another, these religions are all founded upon the instinctive realization that some actions and behaviors are intrinsically right and good, while others are wrong and evil—even if you admit to no "god" in your philosophy who is qualified tell you what to do. The problem is, although every honest person acknowledges that he has at some point violated his own conscience, there is no reliable mechanism for the atonement of sin. To paraphrase Paul, "All have sinned: we have all fallen short of what we *know* is blameless behavior." So there's no nirvana for you guys. Better luck next time.

It is inevitable: the closer one adheres to the core tenets of any Eastern religion, the more despair and hopelessness he will experience. The ancestor worship endemic in Taoist thought presents a miserable scenario—there *is* an afterlife, but no such thing as being forgiven for your sins. And saddled with the error of reincarnation, the Hindu-based religions offer only the most forlorn of hopes—that even if you're *perfect* in this life (though everyone knows he is not) the best you can hope for is to *die* when you die—to escape at last from the cycle of sorrow common to all men (as far as they know).

Mind you, there is nothing *good* about this sought-after state of release from reincarnation—it's not "heaven." There is no joy, no satisfaction, no pleasure, no fellowship with God (or anybody else), no peace, and no life. On the other hand, there is no pain, frustration, sorrow, or despair, either. There is only *nothing*. If you'll recall our discussion of the Bible's portrayal of the afterlife in Chapter 29 (*The Three Doors*) the Hindu *ideal* is what the Bible portrays as something unimaginably horrible when compared to Yahweh's plan of salvation. Let's face it: nirvana describes destruction, annihilation, and permanent, irrevocable death. The only thing worse (and it's *infinitely* worse) is the eternal living hell promised to those who wilfully receive Satan's corrupt but immortal spirit.

What Last Days role can we expect these varied Eastern religious philosophies to play in the coming decades, as the world as we know it begins to collapse under the weight of its sins? When faced with the demographic pressures of a shrinking planet, how will their doctrines, practices, and core beliefs affect their place in the world? Will they turn out to be villains, victors, or victims? Bear in mind that the "Religion of Despair" is concentrated in one sweeping geographical area—southern and eastern Asia, a swath extending from India and Southeast Asia to China, the Pacific Islands, and Japan. It is a land characterized in the Bible, in broad terms, as "beyond (i.e., east of) the Euphrates River." Today, this is some of the most densely populated territory in the world, shared in many places with Islam and Atheism. Their future, I'm afraid, looks bleak.

If you'll recall our established Tribulation scenario, the Antichrist will arise in the West (that is, from the territories of both the Grecian and Roman empires, which overlapped to some extent, but *not* east of the Euphrates). His messianic aspirations will underpin his "covenant with many" (Daniel 9:27) between Israel and the Islamic world, the event that by definition will kick off the 70th "week" of the Daniel 9 prophecy-a.k.a., the Tribulation. His defense of that covenant will embroil him in a war against Middle Eastern Islam (the War of Magog-Ezekiel 38-39, Daniel 11, Psalm 83) which will escalate into all-out nuclear war (World War III), as predicted in the first Trumpet Judgment (Revelation 8:6-7). This war will decimate Europe, Russia, and the United States (not to mention the Islamic Middle East), burning one third of the Earth's land surface and killing—between the war and the resulting disease and famine (Revelation 6:8)—a quarter of its inhabitants. In what will doubtless be mistaken for "post-Apocalyptic" conditions (though the *real* Battle of Armageddon still lies in the future), the whole world will acclaim the Antichrist as their hope and savior-their Messiah-granting him unlimited authority to rein in the madness and anarchy of the times.

This war probably *won't* touch the lands inhabited by the "Religion of Despair," the home of the Eastern religions we've been discussing. But they're not out of the woods. The Antichrist will become dictator of Earth by popular acclaim about three and a half years after his "covenant with many" is implemented (which is, ironically, the very event that precipitated this most devastating war in the history of mankind). But the *next* great war will happen on his watch—that is, during the forty-two months of his tenure as world dictator/demigod. It is described as the sixth Trumpet Judgment (Revelation 9:13-21), in which a 200-million-man army from China (if the colors of their flag and a half-century of preparation are any indication) will run rampant over the entire Far East, killing one third of the earth's remaining population (which works out to the same number of lives lost in the western war—another two billion-plus souls, if the world's population continues growing at its present rate until then).

Bearing in mind that *everyone* (more or less) will have pledged his allegiance to the Antichrist (a.k.a. the beast) and his "god" Satan by this time (see Revelation 13:7-8), we need to sort out who are the victims, and who are the perpetrators, in this great Far Eastern genocidal war. Given the general philosophy of pacifism or non-violence endemic in Hinduism, Buddhism, and Taoism, it would appear that the 200,000,000 Chinese aggressors are *not* being driven by their traditional Taoist proclivities, but rather by either (1) the state religion of China since the mid-20<sup>th</sup> century—atheistic secular humanism, or (2) its kissing cousin, the worship of the "ultimate human," the Antichrist. The genocidal horror in the Far East will be perpetrated with his knowledge, blessing, and support. This means that the *targets* of the genocidal Far Eastern war (something I have referred to as "World War IV"—the sixth Trumpet judgment) will primarily be those who are today adherents of what I've labelled the "Religion of Despair"—Hindus, Buddhists, Taoists, and their various derivatives. (And I imagine a great number of Far Eastern Muslims will perish with them—Indonesia is the world's most populous Islamic nation, and even China hosts over 25 million Muslims.) It is not in the nature of Hinduism or Buddhism to instigate such wars, for they operate (as we have seen) primarily on raw conscience: they *know* there is something wrong with attacking your neighbor without cause or provocation. Atheists know no such thing.

This leaves me to speculate as to *why* the Antichrist is seen blessing the genocide in the Far East, as he must, if "Authority was given him over every tribe, tongue, and nation," and if "All who dwell on the earth will worship him, whose names have not been written in the Lamb's Book of Life." (Revelation 13:7-8) The obvious answer, of course, is that the Chinese hordes will have made a "deal with the devil," so to speak, to obtain new territory in which to grow food for their desperate and starving population. After all, just because they were not nuked during the recent World War III (the war in the west), the effects of the off-predicted "nuclear winter" have not left them untouched: the sunlight has been blocked by one third (see the Fourth Trumpet judgment, Revelation 8:12), crops are taking much longer to grow, and people are starving.

But could there be another factor? Could it be that vast numbers of (now former) Hindus, Buddhists, Taoists, and Sikhs will have heard and heeded the angelic admonition (Revelation 14:6-11), deciding to reject both the beast and Babylon in favor of the One True God? Yes, they've been blind for millennia to His plan, purpose, and identity. Yes, they've missed the rapture, having remained willingly ignorant of Yahweh's plan of redemption until far too late. And yes, their fate as mortals—according to the unbreakable word of Yahweh's prophecy—is sealed: they will be slaughtered by the hundreds of millions. But now that the choice has at last been made clear, now that everyone's cards are on the table, could they not follow their God-given consciences one last time, leave despair in the shadows, and step into the light? There is an infinite difference between being a victim and being a martyr.

Well, I can dream, can't I?

## The Religion of Denial

One way to sidestep (at least in theory) the whole "what happens after you die" question is to posit that there is no God, no Creator to whom we owe our existence, hence no divine moral standard to which we are held accountable in

life—something that might impact our status in some presumed afterlife. If there is no God, then we are free to ignore the constraints of conscience, which we take to be a mere anthropological artifact, a cultural phenomenon we imposed upon our own societies as they evolved in order to ensure the survival of the tribe. But now that the "tribe" has apparently outgrown any danger of extinction, the conscience is nothing but a hindrance to the primary driving principle—survival of the fittest *individual*.

Atheistic secular humanism, then, is a belief system that begins with the premise that the evidence we see of a Divine Intelligence in creation (excuse me—in *the cosmos*) is an illusion. Their mythos is that it all happened accidentally, by chance, through fortuitous happenstance that resulted in what we see before us today—a universe of vast proportions in which life exists in dizzying variety, despite the astronomical odds against such a thing happening.

I speculated above about how certain Eastern religions (like Sikhism, for example) seem to me to be naturalistic reactions to man's observation of the glory of God as revealed in nature. I must admit, I judiciously edited Paul's quote on the subject, remarking only upon that to which these "natural worshipers" may have been responding—the "attributes of God." But although God can be seen in nature, the apostle's primary point was that despite the evidence of His nature and presence, some people chose *not to* receive Him. The results of their disbelief needed to be revealed.

So allow me now to quote the passage at length and in context. After pointing out (just as Yahshua had in John 6:29) that faith is the key to salvation, Paul delivers the bad news: "For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who suppress the truth in unrighteousness, because what may be known of God is manifest in them, for God has shown it to them...." It's bad enough to miss the obvious natural clues to the reality of God; it's infinitely worse to "suppress the truth" so others may not discover it. This is what earns someone the "wrath of God." What he's describing is spiritual *murder*.

The evidence is there. We have only to open our eyes: "For since the creation of the world His invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that they are without excuse, because, although they knew God, they did not glorify Him as God, nor were thankful, but became futile in their thoughts, and their foolish hearts were darkened....." He says, quite rightly, that "the things that are made" (i.e., the things Yahweh has created) are sufficient evidence to be assured of the existence of a Creator God. As the Psalmist says, "The heavens declare the glory of God, and the expanse of the sky displays His handiwork." Modern astronomical discoveries have made this more obviously true than ever before. Call it a coincidence if you must, but our solar system is perfectly positioned within our galaxy to give us a spectacular vista of the starry

sky from our planet. You can't actually *see* the Milky Way from just anywhere within it, but you can from Earth.

"Professing to be wise, they became fools, and changed the glory of the incorruptible God into an image made like corruptible man." This is the heart of secular humanist heresy: that the real object of their worship is *they themselves*. The humanists have declared *humanity* to be their god, though humans are corrupt, foolish, inept and venal—and they know it. But Paul also mentioned that it can get even sillier than this: "-and birds and four-footed animals and creeping things...." Nature worship goes beyond traditional pantheistic paganism. It is also a subset of modern atheistic secular humanism, as we shall see in a moment—the religion of earth worship: environmentalism. The basic idea is, "There is no god, so it is up to man to protect and preserve nature." A fine sentiment, to be sure, but one that is arrogant, ignorant, and doomed to failure if pursued without deference to the God who created nature in the first place.

What is to be done with people who purposely substitute Yahweh with themselves in their affections? We still live in the age of grace, of free will and personal choice, so Yahweh cannot (without violating His own purpose) force them to believe, or even behave themselves. All He can really do without breaking character in this age is let them follow the dictates of their hearts: they have declared humanity to be the product of evolution, and man to be nothing but a very smart ape. You think you're an animal? So be it: "Therefore God also gave them up to uncleanness, in the lusts of their hearts, to dishonor their bodies among themselves, who exchanged the truth of God for the lie, and worshiped and served the creature rather than the Creator, who is blessed forever. Amen...." The "truth of God" is that we humans were, uniquely in creation, made in the image and likeness of God—with the capacity of hosting an immortal Spirit within our souls. We were made, in short, to worship Yahweh, to honor Him, and to enjoy a loving relationship with Him—all things that require (at the very least) belief in His existence. The "lie" that has been exchanged for this truth is that God does not exist, and that man is just an accidental animal, amoral and guiltless, driven by lust, instinct, and self-interest, and accountable to no one.

Is it any wonder, then, that "For this reason God gave them up to vile passions. For even their women exchanged the natural use for what is against nature. Likewise also the men, leaving the natural use of the woman, burned in their lust for one another, men with men committing what is shameful, and receiving in themselves the penalty of their error which was due." Believe it or not, this is *not* (strictly speaking) a rant against homosexuality. (God did *that* elsewhere, e.g. Leviticus 18:22; 20:13.) This, rather, is a warning that a desire for homosexuality would be the *result* of turning one's back on the truth of God in favor of the lies of man. In other words, if you reject your Creator, though you may still experience carnal pleasure (like any animal), you are inviting the "penalty" for your error—such things as AIDS—to take up residence within you. In the end, you will become unfruitful, barren, and unproductive. And no, I'm not just talking about human reproduction. I'm talking about one's entire life.

It is no coincidence that secular humanists are the *only* proponents of homosexuality, gay marriage, and the trans-gender nonsense that has made such inroads into our apostate society today. (People who worship God—*any* god, even false ones like Allah—tend to find such things detestable.) A rejection of Yahweh leads inevitably to a repudiation of God's attributes, such things as creativity, fecundity, progress, and permanent relationships. Homosexuality is a spiritual metaphor for incompetence, infertility, stagnation, and egocentricity.

Homosexuality, of course, is only the beginning—only a symbolic harbinger of the humanist's pitiable condition. Not every secular humanist, in point of fact, longs to use his own sexual apparatus in ways God never intended. So Paul now gets more specific about what sorts of things atheistic secular humanists can expect to find evidenced in their lives: "And even as they did not like to retain God in their knowledge, God gave them over to a debased mind, to do those things which are not fitting; being filled with all unrighteousness, sexual immorality, wickedness, covetousness, maliciousness; full of envy, murder, strife, deceit, evil-mindedness; they are whisperers, backbiters, haters of God, violent, proud, boasters, inventors of evil things, disobedient to parents, undiscerning, untrustworthy, unloving, unforgiving, unmerciful; who, knowing the righteous judgment of God, that those who practice such things are deserving of death, not only do the same but also approve of those who practice them." (Romans 1:18-32)

*What?* Atheists "*know* the righteous judgment of God?" Well, not from scripture. The word translated "know" is the Greek *epiginosko*, which *Thayer* defines as "to become thoroughly acquainted with, to know thoroughly; to know accurately; to recognize a thing to be what it really is; to find out, ascertain; or to understand." In other words, it's that inconvenient conscience again—that little voice within all of us that tells us, "This is evil—don't do it," even if we sincerely believe that there is no one in heaven or on earth who could call us to account for our actions. Oh, they *know*, alright.

Paul has gone out of his way here to condemn those who not only engage in these sinful behaviors, but encourage them in others. So for example, while looting and burning are bad, incitement to riot is worse; impure sexual thoughts are harmful, but producing pornography is grounds for God's wrath; getting high on drugs is self-destructive, but making, smuggling, or dealing them is a whole different category of evil; ignoring God's word and will is a tragedy, but suppressing it so that other people might not become familiar with it is tantamount to mass murder.... You get the idea. Yahshua told His disciples, **"It is impossible that no offenses should come, but woe to him through whom they do come! It** 

# would be better for him if a millstone were hung around his neck, and he were thrown into the sea, than that he should offend one of these little ones." (Luke 17:1-2)

Secular humanists make a contact sport out of "offending the little ones." The question is *why*. Why should they care what other people think or say? Why do they want to sue you if you pray in public? Why would they rather you said "happy holidays" instead of "merry Christmas"? (I'm not saying Christ was born in December you understand, but because atheists attack Christmas, I'm inclined to defend it.) Why do they boycott and picket a restaurant chain merely because its founder says traditional marriage between a man and a woman is a good thing? Why do they invariably (and irrationally) support Muslim causes (even those linked to terrorism), but condemn Israel? The answer may be that they're terrified that God actually *does* exist, and that if people are free to honor Him, they will become irrelevant laughing stocks, the object of scorn or pity in the world. It's revealing, however, that they seldom attack religions like Islam or Hinduism or Buddhism, only Christians and Jews. And among Christians, the ones singled out for scorn are the Evangelical, fundamentalist types, while they usually give the Vatican some degree of respect. You can virtually identify who God is by observing who the atheists hate (or fear) the most.

One of the atheists' most effective tactics in America for the past few years has been to sue cash-strapped organizations and municipalities to force them to de-Christianize their public personae, in the name of "separation of church and state." Acquiescence is presumed to be more practical than being forced to fight costly and protracted legal battles in the courts: their targets could easily win the battle only to lose the war to bankruptcy. Never mind that "separation of church and state" is not a legal principle *per se*: the only Constitutional requirement is that government doesn't interfere with the establishment of religion (which is, if you think about it, precisely the opposite of the atheists' premise). But to fight Satan in court these days, one must have deep pockets.

One of the more active atheist aggressors these days is named, ironically enough, the Freedom From Religion Foundation. That's ironic because atheism itself is actually a religion (unlike true Christianity, which is merely a relationship between a believer and his Savior). Atheists hold to a belief system based on a shared world view, a philosophical mindset founded not on established facts, but simply on what its adherents wish to be true. Like most religions, atheistic secular humanism actively proselytizes, seeking converts among the captive audiences in institutions of public and higher education—where it goes virtually unchallenged these days. Indeed, in America, secular humanism has become the very thing we originally set out to avoid: the state-sanctioned religion. It even has its own "scriptures," so to speak, which sound swell until you scratch one micron beneath the surface. They include this summary statement of beliefs from the Humanist Manifesto:

"Knowledge of the world is derived by observation, experimentation, and rational analysis. Humanists find that science is the best method for determining this knowledge as well as for solving problems and developing beneficial technologies. We also recognize the value of new departures in thought, the arts, and inner experience—each subject to analysis by critical intelligence."

It doesn't help to "observe" the world if you aren't prepared to accept what you see. Humanists speak as if to be a Christian, one has to check his brain at the door. But the *data* of science and the *truth* of scripture are in perfect agreement. (Note that I didn't say the *conclusions* of scientists and the *traditions* of religion: those things couldn't be further apart.) If scientists were infallible or wise, we wouldn't be faced with half the doomsday scenarios I've written about in these past few hundred pages—GMO poison masquerading as food, world-ending weapons, unstoppable diseases, artificial intelligence, transhumanism, etc. The fact is, without divine guidance, man has very limited perception of what he needs or what he should be doing to meet those needs.

"Humans are an integral part of nature, the result of unguided evolutionary change. Humanists recognize nature as self-existing. We accept our life as all and enough, distinguishing things as they are from things as we might wish or imagine them to be. We welcome the challenges of the future, and are drawn to and undaunted by the yet to be known."

Every shred of scientific evidence ever collected refutes the idea of progress through "unguided evolutionary change." And as far as we have ever witnessed, life comes only from life. It does not—and indeed, cannot—arise spontaneously from non-life. Nor do life-forms become something else, something more complex or advanced, simply by accident. When a living genome changes, it is *always* in the direction of greater specialization. In other words, genetic data and organization is *lost* over time, not gained (just as predicted by the Second Law of Thermodynamics). What we see in nature is not evolution; it is devolution.

Moreover, the conditions for life on this planet are balanced on a razor's edge—an impossibly complex and unlikely set of circumstances, weighed against an impossibly short time frame, make the humanist position on the origin and spread of life on Earth mathematically indefensible. Humanists do *not* "accept our life as all and enough." Their scientists are forever trying to fix what's broken—while botching the job at every turn. Oh, and by the way, the *only* thing that's "self-existing" is Yahweh—whose self-revealed name, not coincidentally, means "I Am," in other words, "Self-Existing."

"Ethical values are derived from human need and interest as tested by experience. Humanists ground values in human welfare shaped by human circumstances, interests, and concerns and extended to the global ecosystem and beyond. We are committed to treating each person as having inherent worth and dignity, and to making informed choices in a context of freedom consonant with responsibility."

If this weren't so sad (and misleading), it would be hilarious. The entire humanist endeavor depends on *situational* ethics—moral relativism (as opposed to moral absolutism in which there is an unconditional, unchanging standard of right and wrong). Humanists try to circumvent the whole "morality" issue by theorizing that there is no God, hence no such thing as sin—no absolute standard of right and wrong. (Individual humanists tend to hold this philosophy until they get mugged and left for dead, after which time their absolute faith in moral relativism tends to waver a bit.)

With less than altruistic motives, the humanist viewpoint endeavors to make everyone equal at the finish line—instead of at the starting blocks. It results in an economic system called socialism, in which self-appointed elites steal from the productive in order to level the playing field, never noticing that the system never actually works in practice. It may seem kind and merciful at first, and it does tend to endear politicians to the voting public for a little while. But in the end, it merely sucks the vitality and motivation out of a society, leaving the parasitic majority feasting on a dead host, slaves to their own greed and sloth.

For all their protestations of interest in human welfare and dignity, we must never forget that twentieth century secular humanists were responsible for more lives lost than in all the religious wars in history. Dr. R. J. Rummel (who coined the term democide—death by government) calculates that Communism (founded on atheistic secular humanist principles) was responsible for the deaths of approximately 110,286,000 individuals (his mid-level estimate) between 1917 and 1987. Another notable secular humanist episode was the French Revolution, in which Robespierre's Reign of Terror took the lives of 297,000 middle- or lowerclass French citizens (along with about 3,000 royals). And not to beat a dead horse, but consider the ghastly death toll of abortion—forty-five million souls lost to secular humanist principles *every year* for at least the past half century. That's over two billion lives. And need I remind you of the humanist dream (or is that "plan"?) of killing 90% of the world's present population with Ebola or starvation in order to "save the planet" from humanity? So much for "treating each person as having inherent worth and dignity." Secular humanism is a death machine the likes of which the world has never before experienced.

*"Life's fulfillment emerges from individual participation in the service of humane ideals. We aim for our fullest possible development and animate our lives"* 

with a deep sense of purpose, finding wonder and awe in the joys and beauties of human existence, its challenges and tragedies, and even in the inevitability and finality of death. Humanists rely on the rich heritage of human culture and the lifestance of Humanism to provide comfort in times of want and encouragement in times of plenty."

Since the entire humanist experience mocks that incomprehensible paragraph, allow me to translate it into English: "We are scared spitless that we might be wrong about the whole God-death-afterlife thing, so we do what we can to beat our consciences into submission by immersing ourselves in politically correct feel-good causes. Since our real agenda—survival of the fittest—violates conscience at every turn, we busy our days with activities designed to minimize the guilt we feel about our hatreds, jealousies, and ambitions. But we never give a sucker an even break, and we never *ever* let a crisis go to waste."

"Humans are social by nature and find meaning in relationships. Humanists long for and strive toward a world of mutual care and concern, free of cruelty and its consequences, where differences are resolved cooperatively without resorting to violence. The joining of individuality with interdependence enriches our lives, encourages us to enrich the lives of others, and inspires hope of attaining peace, justice, and opportunity for all."

Spouting Christian virtues as your ideal, while simultaneously denying them with every move you make, doesn't fool anybody. Humanists love to ride the coattails of such luminaries as Abraham Lincoln and Martin Luther King Jr., but these men were Christians, whose quests for peace, unity, and liberty were Christian ideals, derived naturally from deep reverence for the Almighty. (Both of them were assassinated by humanists, by the way). Humanists love free speech, opportunity, and "individuality with interdependence" for themselves, while constantly working to deny such things to others. Societies (like Stalinist Russia or Maoist China) that have been run according to *real* humanist ideals invariably prove the claims of the Humanist Manifesto to be bald-faced lies that mock the pain of their victims. But humanists are ideologues, to whom historical facts are not nearly as compelling as social theories and wishful thinking.

"Working to benefit society maximizes individual happiness. Progressive cultures have worked to free humanity from the brutalities of mere survival and to reduce suffering, improve society, and develop global community. We seek to minimize the inequities of circumstance and ability, and we support a just distribution of nature's resources and the fruits of human effort so that as many as possible can enjoy a good life."

Again, history begs to differ. "Progressive cultures" have *never* freed anyone, reduced suffering, or improved anything in the long run. "Minimizing inequities" is doublespeak for stealing from the productive and bribing the poor with trinkets

designed to keep them subservient and dependent. A "just distribution of nature's resources and the fruits of human effort" simply means that what the wealthy have must be taken from them and given to those of lesser means.

It is presumed that wealth is evidence of wrongdoing, something "social justice" seeks to correct. It never occurs to the humanist that affluence can also result from hard work, insight, taking risks calculated to reap rewards, and even (*gasp!*) blessing from God. Nor do they factor in that poverty can often be the result of sin, self-indulgence (e.g. substance abuse), or sloth. I'm *not* saying that all wealth is well-deserved, nor that poverty is always the poor's fault; I'm merely noting that it is not the humanists' job to play Robin Hood. The God in whom they don't believe will call everyone to account in His own good time.

"Humanists are concerned for the well-being of all, are committed to diversity, and respect those of differing yet humane views. We work to uphold the equal enjoyment of human rights and civil liberties in an open, secular society and maintain it is a civic duty to participate in the democratic process and a planetary duty to protect nature's integrity, diversity, and beauty in a secure, sustainable manner."

Translation: We might defend your position, but only if you agree with us. We love "diversity," because it keeps people divided and suspicious of each other. "Human rights" and "civil liberties" are great ways to justify rampant and open sin against God and man. An "open secular society" has no room for reminders of God's existence or plan. The "democratic process" is essential for facilitating the godless majority's perceived need to trample the rights of the godly minority. And nature worship is the perfect "cover" for our loathing of the Creator.

"Thus engaged in the flow of life, we aspire to this vision with the informed conviction that humanity has the ability to progress toward its highest ideals. The responsibility for our lives and the kind of world in which we live is ours and ours alone."—The Humanist Manifesto III

Again, only utter ignorance of the lessons of history could lead a humanist to actually believe that "humanity has the ability to progress toward its highest ideals." Humanism has only ever resulted in misery, poverty, hatred, war, and/or death for the vast majority—while enriching a handful of elite rulers at the top who through stealth or treachery have managed to "survive" where others less fit have fallen.

But they did get one thing right. Man *is* responsible for the state of the world in which he lives: it is his choices, his policies, and his attitudes that determine whether mankind and nature will thrive or wither—not because there is no God, but because Yahweh put us in charge of Planet Earth. We are its stewards, answerable to God for the condition of the world He has left in our trust. Something tells me the human race is about to get fired.

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Atheists have a problem. If (as they insist) there is no God—no external intelligence responsible for having created the universe, including us—and if we are here on Earth with a myriad of other life forms (which we obviously are), then we must have arisen purely by accident, by chance, by the serendipitous confluence of thousands of unlikely factors to arrive at what we see today. For all their claims of scientific consensus, the odds against such a thing are beyond astronomical, something so irrational *no one* would believe it if they didn't have a psychological (or financial) motive for doing so. But we're not dealing with rational thought here, we're dealing with a belief system: the Religion of Evolution—denial of the Creator's role in our existence.

So with admirable adroitness, evolutionist atheists attempt to pull off a bit of sleight of hand, a little misdirection, something essential to any good magic trick. While any normal person would be trying to figure out what the basis for their irrational belief in the concept of life arising from non-life might be, they tell us, "No, no. Those issues are 'settled science.' Everybody *knows* there is no Creator-God, no 'first cause.' And since life arose spontaneously here, it *must have* done so elsewhere as well. It must be easier than it looks—perhaps even inevitable—for life to pop into being and begin evolving into ever more complex forms on any planet with liquid water on it. And we don't care how much of your money we have to spend trying to prove our theory."

This agenda was promulgated decades ago by such pop-cultural scientific icons as Carl Sagan, and it has been taught as gospel truth in the media and the state-run schools ever since. So the following report by Benjamin Fearnow, published by CBS Connecticut (July 15, 2014) is far from unique—except for one thing: their projected date of ultimate vindication. The article is entitled: "NASA: Humans Will Prove 'We Are Not Alone in the Universe' within 20 Years." That puts their "put-up-or-shut-up" moment within the same time frame as dozens of doomsday factors we have already examined—the fourth decade of the twenty-first century. It's as if they've declared, "We will soon *prove* there is no God," while God has said, "Well, give it a try if you feel you must, but work fast—I'm on a schedule here."

For the atheists, it's a numbers game. "NASA predicts that 100 million worlds in our own Milky Way galaxy may host alien life, and space program scientists estimate that humans will be able to find life within two decades. Speaking at NASA's Washington headquarters, the space agency outlined a plan to search for alien life using current telescope technology, and announced the launch of the Transiting Exoplanet Surveying Satellite in 2017. The NASA administrators and scientists estimate that humans will be able to locate alien life within the next 20 years." It may be helpful to remember that "we" have been using radio telescopes trying to find evidence of intelligent alien life since 1960, with the SETI (Search for Extra-Terrestrial Intelligence) program, on which we have been spending \$2.5 million per year for the past half century—with no results whatsoever. But hope springs eternal within the atheist breast: they're thinking, "If we find *something* out there, it will prove that *nothing* created it." Sigh.

"Just imagine the moment, when we find potential signatures of life. Imagine the moment when the world wakes up and the human race realizes that its long loneliness in time and space may be over—the possibility we're no longer alone in the universe,' said Matt Mountain, director and Webb telescope scientist at the Space Telescope Science Institute in Baltimore, which plans to launch the James Webb Space Telescope in 2018. 'What we didn't know five years ago is that perhaps 10 to 20 per cent of stars around us have Earth-size planets in the habitable zone,' added Mountain. 'It's within our grasp to pull off a discovery that will change the world forever.'" It is so ironic: they desperately hope not "to be alone in the universe," yet they would be horrified if they somehow stumbled across evidence of the existence of the Living God out there.

"Describing their own estimates as 'conservative,' the NASA planet hunters calculate that 100 million worlds within the Milky Way galaxy are able to sustain complex alien life forms. The estimate accounts for the 17 billion Earth-sized worlds that scientists believe to be orbiting the galaxy's 100 billion stars. The NASA panel says that ground-based and space-based technology—including the Hubble Space Telescope, the Kepler Space Telescope, and the Spitzer Space Telescope—will be able to determine the presence of liquid water, an essential sign of potential alien life." Really? Water (H<sub>2</sub>O) is the second most prevalent molecule in the universe (after carbon monoxide), so it would be a miracle if they found a planet in the habitable zone (the right distance from its star to allow for liquid water on the surface) that *didn't* have any (at least at one time). But it is a long, *long* jump from finding water to discovering non-created life.

"I think in the next 20 years we will find out we are not alone in the universe,' said NASA astronomer Kevin Hand, who suggested that alien life may exist on Jupiter's Europa moon. 'Do we believe there is life beyond Earth?' asked former astronaut and NASA Administrator Charles Bolden. 'I would venture to say that most of my colleagues here today say it is improbable that in the limitless vastness of the universe we humans stand alone.'" Well, that settles it, I guess: "We all *believe it*, so it *must* be true." Never mind the fact that your funding—your very livelihood—depends on you holding that opinion.

"The NASA panel said efforts are focused on finding signs of alien life on planets on other stars outside of our solar system. 'Sometime in the near future, people will be able to point to a star and say, "that star has a planet like Earth," said Sara Seager, professor of planetary science and physics at the Massachusetts Institute of Technology in Cambridge, Mass. 'Astronomers think it is very likely that every single star in our Milky Way galaxy has at least one planet."" Did you catch the string of unwarranted leaps of logic there? (1) Life must have arisen spontaneously from non-life on Earth. (2) This happened on Earth only because it has liquid water. (3) There are lots of stars in our galaxy. (4) All of these stars must have planets circling them. (5) Many of these planets must be just like Earth. (6) So life must have arisen on every Earth-like planet in the galaxy. The naiveté is enough to make your head swim.

The "reasoning" is completely circular. The assumption that life on Earth happened spontaneously, completely by chance, is posited as *proof* that life must arise the same way anywhere in which the conditions are similar. Because the idea of an "Intelligent Designer" behind it all suggests the existence of Something or Someone qualified to define good and evil, it is rejected out of hand. Such a thing, they say, "reeks of religion," and is therefore "unscientific." Truth (or even fact) never enters into the equation. The atheist's point of view is driven entirely by what they wish to be true—it's a belief system, a religion without a god.

It would appear that the scientists hoping to "disprove" the existence of God by the fourth decade of the twenty-first century by discovering life on other planets may have underestimated several factors that conspire to make Earth absolutely unique in its ability to host life. It takes a whole lot more than an Earthsized planet orbiting in the "habitable zone" of its star. Peter D. Ward and Donald Brownlee (both evolutionists, by the way) in their book *Rare Earth*, have cataloged a number of other factors found on Earth that seem to be essential for the existence of animal life to exist on a planet—though they are all extremely unlikely by their very nature.

They point out that (1) the planet's star has to be big enough to have enough nuclear fuel to "burn long enough to let evolution work its wonders." Most (over 95%) are too small and dim, meaning candidate planets would have to orbit closely, often causing "tidal lock," in which (as with our moon orbiting the earth) one side always faces the star (or the revolutions are extremely slow, as with Mercury and Venus). (2) A large moon (like ours) seems to be a requirement, causing tidal fluctuations and providing orbital stability. The chances of such a large moon forming (and happening early enough in the planet's development) are vanishingly small. (3) The planet's orbit must be approximately circular, not

elliptical, as is often the case. (4) There must be a gas giant (like our Saturn and Jupiter) in the solar system to sweep up planet-killing asteroids, but not orbiting too close to the candidate planet or its star, a condition that would create a magnetic hell. (5) The star must be unusually metal-rich, as is our sun.

And what about the planet itself? (6) There must be a spinning metal core, which would create (as it does on Earth) a magnetic field about the planet, deflecting the solar wind. (7) The planet must feature plate tectonics, necessary in replenishing the nutrition that primitive life forms live on, helping to generate a magnetic field by convection of Earth's partially molten core, and recycling atmospheric CO<sub>2</sub>. (8) There must be neither too much water nor not enough. If Earth's proportions of land to sea were reversed, life would be impossible. (9) The primeval seas must have abundant shallows in order for carbonates (limestone) to form, allowing CO<sub>2</sub> drawdown. Without this, a runaway greenhouse effect would eventually raise the global temperature above the 40°C mark—the upper limit for sustained animal life. (If the temperature rose above 100°C, of course, the oceans would boil off, forming a vapor canopy around the planet.) (10) The seas must have precisely the right degree of salinity and acid/alkaline balance (pH). Fresh water is not suitable, nor is an acidic aqueous environment.

I could go on, but you get the idea. Even if you are an evolutionist who rejects the idea of a Creator God on philosophical grounds, you must still admit that there is more to life than just finding a little liquid water on a planet's surface. Your planet must be Goldilocks on steroids—a hundred extremely unlikely things need to be *just right*, or your theory isn't plausible, much less likely. It seems to me that evolution is a religion for people with bad math skills. Finding life on one of the hundred million presumed planets in our galaxy would be like winning the lottery twenty times in a row—and it *still* wouldn't disprove God. As for me, I'll take His word for it: **"Thus says Yahweh, who created the heavens, who is God, who** formed the earth and made it, who has established it, who did not create it in vain, who formed it to be inhabited: I am Yahweh, and there is no other." (Isaiah 45:18)

Is life without an Intelligent Designer even possible? Dr. Jay L. Wile reports on a fascinating exercise that was run by some researchers at Stanford. He writes, "The simplest genome belongs to a bacterium known as *Carsonella ruddii*. It has 159,662 base pairs in its genome, which is thought to contain 182 genes. However, it is not considered a real living organism, as it cannot perform all the functions of life without the help of cells found in jumping plant lice. The bacterium known as *Pelagibacter ubique* has the smallest genome of any truly free-living organism. It weighs in at 1,308,759 base pairs and 1,354 genes. However, there is something in between these two bacteria that might qualify as a real living organism. It is the bacterium *Mycoplasma genitalium*. Its genome has 582,970 base pairs and 525 genes. While it is a parasite, it performs all the standard functions of life on its own. It just uses other organisms (people as well as animals of the order *Primates*) for food and housing. Thus, while it cannot exist without other organisms, it might be the best indicator of how 'simple' life can get."

He describes how a group of scientists produced a computer simulation of this ultra-simple bacterium's functions. "Their work, which seems truly marvelous, gives us deep insight into how complex the 'simplest' living organism really is...." It modeled all the inputs and outputs of the bacterium's 525 genes throughout a single cell cycle. In other words, it simulated how the genome produces proteins, how those proteins interact with other proteins, and how the entire system is regulated. It followed these processes through all the events leading up to and including the cell reproducing itself.... They looked at over 900 different scientific papers that had been produced on the inner workings of *Mycoplasma genitalium*, and they identified 1,900 specific parameters that seem to govern how the cell operates. There were several discrepancies that were found among the papers involved, and as a result, a lot of reconciliation had to be done. The details of this reconciliation and other matters are found in a 120-page supplement to the 12-page scientific paper.

"Once the reconciliation of these studies was accomplished, the essential workings of the cell were split into 28 separate modules that each governed specific functions of the cell. For example, one module dealt with metabolism, while another dealt with the activation of proteins once they were produced. Once each module was built and tested individually, the modules were then joined by looking at what they produced every second. If the products of one module were the kinds of chemicals used by a second module, those products were then treated as inputs to the second module for the next second of computation. The computation proceeded like this (checking the inputs and outputs of each module) for about 10 hours, which is roughly the time it takes a real *Mycoplasma genitalium* to reproduce...."

The goal of the study was to "accelerate biological discovery and bioengineering by facilitating experimental design and interpretation...using whole-cell models to enable computer-aided rational design of novel microorganisms." Basically, the idea was to learn how to "play god" with the goal of engineering new life forms. (Sure. What could possibly go wrong?) What the team inadvertently accomplished, however, was to provide proof that even the simplest living microorganism is far too complex to have arisen by chance. There *has to be* an external intelligence behind it.

Dr. Wile concludes, "We need to pull back for a moment and think about the direct implications of this computer simulation. It simulated, in very basic terms,

the molecular interactions that occur in a cell that might be a good analog for the simplest possible life form. It skipped over a lot of details, of course, so it is not a complete simulation by any means. Nevertheless, it is a great first step towards understanding how a living system really works.

"Now let's look at this in very practical terms. In order to be able to match the speed at which the organism operates, this less-than-complete simulation required a cluster of 128 computers to get the job done. Think about that for a moment. In order to simulate most (but not all) of the processes that take place in an analog for what might be the simplest possible living organism, the authors needed the power of 128 computers running together! That should tell us something very clearly: *there is no such thing as a 'simple' living organism*. The more we understand life, the more clear it becomes that even the 'simplest' version of it has to be the result of design."

So all we've really established is that if they *do* find evidence of life in other solar systems by the fourth decade of the twenty-first century, then an Intelligent Creator placed it there, just as He did here.

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An honest atheist reading this (yeah, picture that) might be tempted to say, "Okay, so the math doesn't add up. But you Christians believe some pretty unbelievable stuff too. Your Bible says the universe was created in six days about six thousand years ago—and we have *proven* beyond the shadow of a doubt that it actually goes back about 13.7 billion years, to the 'big bang,' the singularity from which everything that exists emerged. You people are idiots."

While there are some inaccuracies in that statement, our hypothetical atheist spokesman has a point. Due to the way Yahweh delivered the creation account (introducing the six-plus-one pattern that would subsequently be found throughout scripture), we Christians have got (in the immortal words of Ricky Ricardo) "some 'splainin' to do." But the *real* "idiots" here are the *Muslims*, whose scriptures state: "When Allah wanted to create the creation, He brought forth smoke from the water. The smoke hovered loftily over it. He called it 'heaven.' Then He dried out the water and made it earth. He split it and made it seven earths on Sunday. He created the earth upon a big fish, that being the fish mentioned in the Qur'an. By the Pen, the fish was in the water. The water was upon the back of a small rock. The rock was on the back of an angel. The angel was on a big rock. The big rock was in the wind. The fish became agitated. As a result, the earth quaked, so Allah anchored the mountains and made it stable. This is why the Qur'an says, 'Allah made for the earth firmly anchored mountains, lest

it shake you up."—Tabari, Book I:219. I think we can safely dismiss Islam as a source of scientific rationality.

But I'll admit, at first glance, the Bible's creation account doesn't look terribly "scientific" either. That, of course, is because it was written the way it was to teach living spiritual truth, not inert scientific fact. But that doesn't let it off the hook: if our God is truth, the creation account should still hold up under scrutiny, compared against the data we have observed from nature, despite its poetic language. And it does.

"Day one" looks like this: "In the beginning God created the heavens and the earth. The earth was without form, and void; and darkness was on the face of the deep. And the Spirit of God was hovering over the face of the waters." (Genesis 1:1-2) The first sentence describes, in the most cryptic of terms, the creation of time, space, and matter—in an event scientists now describe as the "big bang," something God is said to have accomplished *purposely* (i.e., not by accident or chance). Then the state of the infant universe is described—dark and unformed.

Light did not appear until enough primordial hydrogen and helium were pulled together by gravity to coalesce into the "clumps" of nuclear fusion we see today—stars. "Then God said, 'Let there be light'; and there was light. And God saw the light, that it was good; and God divided the light from the darkness. God called the light Day, and the darkness He called Night. So the evening and the morning were the first day [literally, day one]." (Genesis 1:3-5) The eventual collapse of those first-generation stars would produce the heavier elements that comprise the rest of the universe. It's worth noting (again) that water, made of hydrogen and oxygen, is one of the most prevalent molecules in the universe—and because of its role in our mortal existence, of special interest to the Spirit of God as far back as "day one."

The account goes on to describe a creation process that took place over "six days." The order of events is basically the way our scientific observations picture things—with a few wrinkles thrown in to make spiritual points that wouldn't be fully understood for millennia after Moses recorded what God described to him. We see God separating atmospheric water vapor from liquid surface water as the newly formed planet cooled, and then making dry land appear. (Ward and Brownlee, in the work *Rare Earth* cited above, report that "Don Lowe of Stanford University has estimated that before 3 billion years ago, less than 5% of the surface was land." It is now 29%.) Then plant life appeared, *after which* the sun and moon became visible in the sky (though *light* had showed up on day one)—indicating a clearing of the atmosphere through the addition of oxygen and the drawdown of CO<sub>2</sub> through photosynthesis. Scripture states that life began in the seas. "Birds" are mentioned early on, but the Hebrew word (*uwph*) simply means "flying creatures." It's pretty clear that insects, not birds, are in view. Land animals were introduced next, and finally man.

The fossil record supports all of this. And it is pretty much as any standard evolutionary textbook would lay it out (with the exception, of course, of who was responsible for it all—an Intelligent, motivated God, not blind chance). As I said, the data of science is completely compatible with the revelation of Yahweh's scriptures.

The "six days" thing, though, is still something of a problem for Christians. It is obvious (at least to me) that the *reason* Yahweh described it this way was to introduce the Sabbath principle, one of the most fundamental and ubiquitous prophetic themes in all of scripture. The idea is that fallen man would have six thousand-year "days" to "work out his salvation with fear and trembling," as Paul put it, or to "do the work of God by believing in the One whom He sent," as Yahshua described it. It's all the same thing: mankind must choose whether or not to trust Yahweh for the remedy to our sin—and we have to do it before the "Sabbath," the deadline that was revealed by God here at the very beginning—even *before* man sinned. On the Sabbath, the physical presence of God walking in glory among us will render faith redundant: we will then walk by sight.

And in case you haven't noticed, the whole point of this series of appendices is to demonstrate that this Sabbath deadline is quickly approaching (the Feast of Tabernacles, October 8, 2033, if my theory is correct). We must prepare for it *now* or suffer the unthinkable consequences.

There are any number of "young-earth creationists," whose take on Genesis 1, along with a tenuous chronological link of the "creation week" to the presence of man upon the earth, convinces them that the universe is *literally* only six thousand years (or so) old. This position, not surprisingly, makes Christianity in general the laughing stock of the scientific community—and through them the rest of the world. Mind you, I have no problem with being ridiculed by godless atheists: they know not what they do. And I applaud the young-earth creationists' stand for what they see as unvarnished Biblical truth. But as one who is in the habit of looking for what Yahweh *meant for us to know* (as opposed to merely what He said in plain Hebrew), I have serious doubts that God really intended to teach us *only* that the universe He created is only a few thousand years old. Scientific matters are mentioned in scripture only to reveal the glory or plan of God. The mundane facts of physics or astronomy are never the point. For this reason, there is invariably a heavy-handed symbolic component to their presentation, even though the "facts" too invariably hold up under scrutiny.

What do *I* believe? That we will have precisely six thousand years between the fall of Adam into sin (the reason for Yahweh's plan of redemption) and the ascension of King Yahshua to the throne of planet Earth (the culmination of that plan). It has nothing at all to do with the age of the universe (which, let's face it, was described by Yahweh as being "very good" until Adam screwed it up). The actual date of creation is beside the point for God's redemptive purposes.

That being said, I have always had a problem with the "six literal 24-hour days of creation" theory. There is no scriptural indication that our solar system even existed before the third day of creation. How can you define a "day" without recourse to a planet rotating on its axis in the presence of a nearby star? I also find the physical evidence of an older universe quite compelling—especially red-shift analysis and cosmic microwave background radiation. "The CMB is 'noise' leftover from the creation of the Universe. The microwave radiation is only 3 degrees above Absolute Zero, or -270 degrees C, and is uniformly perceptible from all directions. Its presence demonstrates that that our universe began in an extremely hot and violent explosion, called the Big Bang, 13.7 billion years ago."—*American Physical Society*.

For these reasons (and others) I would describe myself as an "old-earth creationist." In other words, I believe that Yahweh took eons of time to bring about His "six days." But is our God really that sloppy? Is He in the habit of "telling lies" in order to communicate a larger truth? No, He isn't. How can one reconcile six literal days with 13.7 billion years? Can it even be done? Actually, *it can*, though nobody in the scientific community had a clue what was going on until Albert Einstein figured it out for us. It all has to do with Relativity.

I'm not qualified to explain this, of course. But Gerald Schroeder is. Steeped in both science and scripture, Dr. Schroeder received his PhD in nuclear physics and earth and planetary sciences in 1965 from the Massachusetts Institute of Technology, after which he spent five years on the staff of the MIT physics department. (In other words, he's no lightweight.) He was also a member of the United States Atomic Energy Commission before he emigrated to Israel in 1971, after which he worked as a researcher at the Weizmann Institute of Science, the Volcani Research Institute, and the Hebrew University of Jerusalem. He currently teaches at Aish HaTorah College of Jewish Studies. This lengthy but revealing quote is from his personal website, *GeraldSchroeder.com*. Hold onto your hat.

#### *The Flexible flow of time and the stretching of space.*

"Einstein taught the world that time is relative—that in regions of high velocity or high gravity *time actually passes more slowly* relative to regions of lower gravity or lower velocity (one system relative to another, hence the name, the laws of *relativity*). This is now proven fact. *Time actually stretches out*. Wherever you are, time is normal for you because your biology is part of that local system.

"That is Einstein—gravity and velocity. But there is a third aspect of the universe that changes the perception of time, beyond gravity and velocity. That is the stretching of space. The universe started as a minuscule speck, perhaps not larger that a grain of mustard, and stretched out from there. The effect of the stretching of space produces the effect that when observing an event that took place far from our galaxy, as the light from that event travels through space and the sequence of events travels through space, *the information is actually stretched out*. (In *The Science of God*, I give the logic in detail in simple easy to understand terms.)" I'll refer to this most fascinating of books a bit later.

#### The Creation of Time

"Each day of creation is numbered. Yet Nahmanides [a famed thirteenthcentury Jewish scholar, Catalan Sephardic rabbi, philosopher, physician, and Biblical commentator] points out that there is discontinuity in the way the days are numbered. The verse says: 'There is evening and morning, Day One.' But the second day doesn't say 'evening and morning, Day Two.' Rather, it says 'evening and morning, a second day.' And the Torah continues with this pattern: 'Evening and morning, a third day... a fourth day... a fifth day... the sixth day.' Only on the first day does the text use a different form: not 'first day,' but 'Day One' ('*Yom Echad*'). Many English translations make the mistake of writing 'a first day,' because editors want things to be nice and consistent. But [in doing so] they throw out the cosmic message in the text!

"That message, as Nahmanides points out, is that there is a qualitative difference between 'one' and 'first.' 'One' is absolute; 'first' is comparative. The Torah could not write 'a first day' on the first day because there had not yet been a second day *relative to it*. Had the perspective of the Bible for the first six days been from Sinai looking back, the Torah *would* have written 'a first day.' By the time the Torah was given on Sinai there had been hundreds of thousands of 'second days.' The perspective of the Bible for the six days of Genesis is thus from the only time in the history of time when there had *not* been a second day. And that is the first day. *From the creation of the universe to the creation of the soul of Adam, the Torah views time from near the beginning looking forward*." When he writes "near the beginning," he means *very* near—about 1/100,000 of a second after the process began, as we shall soon see. "At the creation of Adam and Eve, the soul of humanity, the Bible perspective switches to earth-based time. And therefore, the biblical description of time changed." Confused yet?

#### How We Perceive Time

"We look at the universe, and say, 'How old is the universe? Looking back in time, the universe is approximately 15 billion years old.' That's *our* view of time. But what is the Bible's view of time *looking from the beginning*? How does it see time? "Nahmanides taught that although the days [of the creation record] are 24 hours each, they contain '*kol yemot ha-olam*'—all the ages and all the secrets of the world. Nahmanides says that before the universe, there was nothing...but then suddenly the entire creation appeared as a minuscule speck. He gives a description for the speck: something very tiny, smaller than a grain of mustard.... In that speck was all the raw material that would be used for making everything else. Nahmanides describes the substance as '*dak me'od, ein bo mamash*'—very thin, no substance to it. And as this speck expanded out, this substance, so thin that it has no material substance, turned into matter as we know it." This is precisely the way modern scientists describe the creation of our universe.

"Nahmanides further writes: '*Misheyesh, yitfos bo zman*'—from the moment that matter formed from this substance-less substance, time grabs hold. Time is created at the beginning. But time 'grabs hold' when matter condenses from the substance-less substance of the big bang creation. When matter condenses, congeals, coalesces, out of this substance so thin it has no material substance, that's when the biblical clock starts." Schroeder is saying something quite remarkable here—that Nahmanides, a thirteenth century rabbi, was able to perceive the ramifications of the big bang from Scripture—even without the benefit of Einstein's insight.

"Science has shown that there's only one 'substanceless substance' that can change into matter. And that's *energy*. Einstein's famous equation,  $E=MC^2$ , tells us that energy can change form and take on the form of matter. And once it changes into matter, time grabs hold.... We know that energy—light beams, radio waves, gamma rays, x-rays—all travel at the speed of light, 300 million meters per second. *At the speed of light, time does not pass*. The universe was aging, time was passing, but time only 'grabs hold' when matter is present. This moment of time before the clock of the Bible begins lasted less than 1/100,000 of a second. A miniscule time, but in that time, the universe expanded from a tiny speck to about the size of our Solar System. From that moment on we have matter, and biblical time flows forward. The Biblical clock begins here.

## Day One and Not a First Day: Seeing Time from the Beginning

"Now the fact that the Bible tells us there is 'evening and morning, Day One,' comes to teach us time from a Biblical perspective, from near the beginning looking forward.... We look back in time and say, 'the universe is 15 billion years old.' But as every scientist knows, there's another half of the sentence that we rarely bother to say: the universe is 15 billion years old *as seen from the time-space coordinates of the earth*.

"The key is that the Torah looks *forward* in time, from very different timespace coordinates [i.e., from the Creator's point of view], when the universe was small. Since then, the universe has expanded. Space stretches, and that stretching of space totally changes the perception of time. Imagine in your mind going back billions of years to the beginning of time. Now pretend way back at the beginning of time, when time grabs hold, there's an intelligent community. (It's totally fictitious, of course.) Imagine that the intelligent community has a laser, and it's going to shoot out a blast of light every second. Every second—Pulse. Pulse. Pulse. And imagine that on each pulse of light the following information is printed: 'I'm sending you a pulse every second.' Billions of years later, far down the time line, we here on Earth have a big satellite dish antenna and we receive that pulse of light. And on that pulse of light we read 'I'm sending you a pulse every second.'

"Light travels 300 million meters per second. So at the beginning, the two light pulses are separated by a second of travel or 300 million meters. Now they travel through space for billions of years until they reach the Earth. But wait a minute. Is the universe static? No. The universe is expanding.... *Space is stretching*. What's happening to these pulses? The space between them is also stretching. So the pulses get further and further apart. Billions of years later, when the first pulse arrives, we read on it 'I'm sending you a pulse every second.' A message from outer space. You call all your friends, and you wait for the next pulse to arrive. Does it arrive second later? No! A year later? Maybe not. Perhaps it won't arrive until billions of years later, because the amount of time this pulse of light has traveled through space will determine the amount of space stretching that has occurred—how much space (and therefore how much time) there will be between the arrival of the pulses [though they were only one second apart when they were sent out]. That's standard cosmology.

## 15 Billion Years or Six Days?

"Today, we look back in time and we see approximately 15 billion years of history. But looking *forward* from when the universe is very small—billions of times smaller—the Torah says 'six days.' In truth, they can *both* be correct. What's exciting about the last few years in cosmology is we now have quantified the data to know the relationship of the 'view of time' from the beginning of stable matter, the threshold energy of protons and neutrons (their 'nucleosynthesis'), relative to the 'view of time' today. It's not science fiction any longer. A dozen physics textbooks all bring the same number. The general relationship between nucleosynthesis—that time near the beginning at the threshold energy of protons and neutrons when matter formed—and time today is a million million. That's a 1 with 12 zeros after it. So when a view from the beginning looking forward says 'I'm sending you a pulse every second,' would we see a pulse every second? No. We'd see it every million million seconds, because of the stretching effect of the expansion of the universe. "The Talmud tells us that the soul of Adam was created at five and a half days after the beginning of the six days. That is a half day before the termination of the sixth day. At that moment the cosmic calendar ceases and an earth based calendar starts. How would we see those days if stretched by a million million? Five and a half days times a million million, gives us five and a half million million days. Dividing that by 365 days in a year, that comes out to be 15 billion years. NASA gives a value of about 14 billion years. Considering the many approximations [involved in the calculation], and that the Bible works with only six periods of time, the agreement to within a few percent is extraordinary. The universe is billions of years old from one perspective [looking back from our day], and a mere six days old from another [looking forward from God's perspective at creation]. And both are correct!" Note also that it works out to *six* days (just as the Bible required), not two, or nine, or eighty-seven. A Genesis-1 "day" is not an unspecified "age," not just "a long, undetermined period of time." Yahweh is very precise—and He *never* lies.

Of course, it's not quite that simple. "The six days of Genesis are not of equal duration. Each time the universe doubles in size, the perception of time halves as we project that time back toward the beginning of the universe. The rate of doubling, that is, the fractional rate of change, is very rapid at the beginning and decreases with time, simply because as the universe gets larger and larger, even though the actual expansion rate is approximately constant, it takes longer and longer for the overall size to double. Because of this, the earliest of the six days have most of the 15 billion years sequestered with them. For the duration of each day and the details of how that matches with the measured history of the universe and the earth, see *The Science of God.*"

Yes, let's do that. In this fascinating and seminal work (The Free Press/Simon & Schuster, 1997) Schroeder spends two entire chapters (3 and 4) discussing how science's "fifteen billion years" actually equates to the Bible's "six days," explaining things in far more detail than his website did. He included a chart (on p. 67) that aligns the scientific description and schedule with the Biblical revelation in light of the theory of relativity, as discussed above. Here are his conclusions:

*Day One* began 15,750,000,000 years before the present, and ended 7,750,000,000 years ago. The Bible, he says, described this as "the creation of the universe; light separates from darkness (Genesis 1:1-5)." The scientific description is that "the big bang marks the creation of the universe; light literally breaks free as electrons bond to atomic nuclei; galaxies start to form." (You'll note that his starting point in 1997 was slightly further back than the 13.7 to 14 billion years that comprise the current "best guess" for the age of the universe. In

a moment, I'll discuss what Schroeder noticed in 2011 that fine-tuned his dates downward.)

*The Second Day* happened between 7,750,000,000 and 3,750,000,000 years ago from our perspective. The Bible described it as "the heavenly firmament forms (Genesis 1:6-8)," and science says, "the disk of the Milky Way forms; the sun, a main sequence star, forms."

*The Third Day*: 3,750,000,000 to 1,750,000,000 years ago. Bible: "Oceans and dry land appear; the first life, plants, appear. (Genesis 1:9-13)" Science: "The earth has cooled and liquid water appears 3.8 billion years ago, followed almost immediately by the first forms of life: bacteria and photosynthetic algae." If you'll recall, in Appendix 5 we determined that a mere 400 million years (or less) passed between the "ball of molten rock" stage and the first fossil evidence of the appearance of life on Earth—a blink of an eye as these things go.

*The Fourth Day*: 1,750,000,000 to 750,000,000 years ago. Bible: "Sun, moon, and stars become visible in the heavens (Genesis 1:14-19)." Science: "Earth's atmosphere becomes transparent; photosynthesis produces oxygen-rich atmosphere."

*The Fifth Day*: 750,000,000 to 250,000,000 years ago. Bible: "First animal life swarms abundantly in waters; followed by reptiles and winged animals (Genesis 1:20-23). Science: "First multicellular animals; waters swarm with animal life having the basic body plans of all future animals; winged insects appear."

*The Sixth Day*: 250,000,000 to approximately 6,000 years ago. (I would suggest that the "sixth day" of creation may actually still be proceeding, and will end only when "God rests"—either at the beginning of Christ's kingdom age, or more likely, at the commencement of the eternal state with the introduction of God's "New Heavens and New Earth." But I'm nitpicking; it doesn't really matter.) Bible: "Land animals; mammals; humankind (Genesis 1:24-31)." Science: "Massive extinction destroys over 90% of life; land is repopulated; hominids and then humans."

And what about the slightly older universe pictured by Schroeder in 1997, as compared to the 13.7 to 14 billion year age NASA and others are estimating today? On his website, Dr. Schroeder writes, "Following a talk I gave at Azuza Pacific University in February 2011, a participant noted that when calculating the expansion ratio of space (that is, by what fraction space had stretched) from the era of nucleosynthesis to our current time, I had neglected to correct for the effect that the increase in the *rate* of universal expansion has on the current cosmic microwave radiation background. This increase introduces a non-linear effect. (That is, the *rate of expansion* is not constant; rather, the rate is increasing.) The correction is in the order of 10%. Had the expansion been linear (and not super-

linear resulting from the increased rate), the CMRB would be not the currently observed 2.76°K, but 3.03°K. Introducing this correction into the exponential equation that details the duration of the six 24-hour days of Genesis Chapter One results in an age of the universe from our perspective of *14 billion years*. From the Bible's perspective of time for those six evocative days of Genesis, the number of our years held compressed within each of those six 24-hour days of Genesis, starting with Day One, would be 7.1 billion years; 3.6 billion; 1.8 billion; 0.89 billion; 0.45 billion; and 0.23 billion."

So the Biblical text describing the origins of the universe and the development of what we find within it agrees with the scientific data available to us. This fact does two things: (1) It makes scientists who insist that there is no God look like idiots, and (2) it makes Christians who refuse to factor the character and will of God into their doctrine appear naïve and shortsighted. Faith is one thing; willful ignorance based on presumption is something else entirely.

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Okay, I got a little sidetracked there. We were exploring "the Religion of Denial," (a.k.a. atheistic secular humanism)—what they put their faith in, and how their beliefs might be expected to affect their actions in the Last Days. Since no "god" is allowed, something must take its/his place, for man is a religious creature—even when he desperately longs not to be. That is, he instinctively seeks for meaning, for order, for *higher purpose* in his life—something completely lacking (as far as we can tell) in the lives of animals. Christians would call this "being made in the image and likeness of God," something unique to the human race. But because atheists consider humans to be nothing but high-functioning animals, alternative explanations for their yearnings must be proposed.

The first of these "explanations," as we have seen, is the idea of evolution—of inexorable though undirected upward progress. The circular argument is, "There is no god, but order obviously exists; therefore order must emerge spontaneously from chaos. Life springs from non-life. And chance mutations alone account for an ever more complex biosphere." Never mind that everything we *know* about nature—as expressed in the proven laws of thermodynamics (and especially the Second Law, that of increasing entropy)—portrays a universe (including the life within it) that is running down, deteriorating, and falling apart.

Evolution, then, is the first "cult" we've looked at within the Religion of Denial. It requires a complete suspension of reason, the presumption of a creation without a Creator, and abysmal math skills (since the odds against our present world emerging by accident are beyond astronomical). Ironically, the patron saint of the cult of evolution, Charles Darwin (whose only earned academic degree was in theology, not science), wasn't entirely convinced that it was true. At the end of His book *On the Origin of Species*, he attributed the flow of life to "the several powers having been originally breathed *by the Creator* in a few [life] forms, or into one." Darwin merely wanted to explain the mechanism of what we now call "microevolution" in response to those who (based on a misreading of Genesis 1) presumed that God had invented each and every species independently. However, the Bible speaks not of *species* at all, but of "kinds" of animals, the boundary lines between which have (according to the fossil record) never been breached. It was Darwin's adherents—notably Thomas Henry Huxley (aptly nicknamed "Darwin's bulldog")—who took the ball and ran with it, evicting God (as if such a thing were possible) from His own Creation. (Tellingly, the phrase "by the Creator" in the quote above was edited out of the text sometime after the sixth edition of *Origin*—that is, after Darwin's death.)

The second "cult" that has arisen within the Religion of Denial is that of *environmentalism*. It's a natural outgrowth, it would seem, of the philosophy of atheistic evolution—the idea that without a god to guide things, the top species in the food chain is responsible for saving "Mother Nature." Once again, fallen man has set up a false god, only to find that god incapable of survival without his help. And for all his intelligence, he is too ignorant to see the irony in that.

Joel Garreau's essay, "Environmentalism as Religion," (The New Atlantis, Summer, 2010), examines the trend. Noting the decline in traditional Judeo-Christian religious practice in Europe and America, he writes, "The rejection of traditional religion in these quarters has created a vacuum unlikely to go unfilled; human nature seems to demand a search for order and meaning, and nowadays there is no shortage of options on the menu of belief. Some searchers syncretize Judeo-Christian theology with Eastern or New Age spiritualism. Others seek through science the ultimate answers of our origins, or dream of high-tech transcendence by merging with machines—either approach depending not on rationalism alone but on a faith in the goodness of what rationalism can offer." This describes the Western world we've come to know in these Last Days: apostate Christianity finds the God they've rejected to be insufficient, and the quintessential secular humanist mindset puts its faith in such desperate measures as transhumanism and artificial intelligence. It's the problem with following religious tradition instead of God Himself-one's beliefs become untenable, based as they are on the shadow, rather than the One casting it.

"For some individuals and societies, the role of religion seems increasingly to be filled by environmentalism. It has become 'the religion of choice for urban atheists,' according to Michael Crichton, the late science fiction writer (and climate change skeptic). In a widely quoted 2003 speech, Crichton outlined the ways that environmentalism 'remaps' Judeo-Christian beliefs: 'There's an initial Eden, a paradise, a state of grace and unity with nature, there's a fall from grace into a state of pollution as a result of eating from the tree of knowledge, and as a result of our actions there is a judgment day coming for us all. We are all energy sinners, doomed to die, unless we seek salvation, which is now called sustainability. Sustainability is salvation in the church of the environment. Just as organic food is its communion, that pesticide-free wafer that the right people with the right beliefs, imbibe.'" Crichton's insight reveals environmentalism to be one more example of Satan's favorite ploy—the plausible counterfeit.

"In parts of northern Europe, this new faith is now the mainstream. 'Denmark and Sweden float along like small, content, durable dinghies of secular life, where most people are nonreligious and don't worship Jesus or Vishnu, don't revere sacred texts, don't pray, and don't give much credence to the essential dogmas of the world's great faiths,' observes Phil Zuckerman in his 2008 book *Society without God*. Instead, he writes, these places have become 'clean and green.' This new faith has very concrete policy implications; the countries where it has the most purchase tend also to have instituted policies that climate activists endorse...." Don't look now, Phil, but trading the God of the Bible for the deity of Environment has also made these countries vulnerable targets for the inroads of the plague of Islam. But that's a subject we'll have to save for a bit.

#### From Theology to Ecotheology

"...The Judeo-Christian teachings about the natural world begin with the beginning: there is but one God, which means that there is a knowable order to nature; He created man in His image, which gives man an elevated place in that order; and He gave man mastery over the natural world: 'And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moves upon the earth. And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for food.' (Genesis 1:28-29)

"In his seminal essay 'The Historical Roots of Our Ecologic Crisis,' published in *Science* magazine in 1967, historian Lynn Townsend White, Jr. argues that those Biblical precepts made Christianity, 'especially in its Western form,' the 'most anthropocentric religion the world has seen.' In stark contrast to pagan animism, Christianity posited 'a dualism of man and nature' and 'insisted that it is God's will that man exploit nature for his proper ends.' Whereas older pagan creeds gave a cyclical account of time, Christianity presumed a teleological direction to history, and with it the possibility of progress. This belief in progress was inherent in modern science, which, wedded to technology, made possible the Industrial Revolution. Thus was the power to control nature achieved by a civilization that had inherited the license to exploit it.... Christianity, writes White, 'bears a huge burden of guilt' for the destruction of the environment."

I might interject here that although the greatest scientific advancements man ever made were indeed made by believers in God (men like Copernicus, Bacon, Galileo, Descarte, Newton, Boyle, Faraday, Kepler, Pascal, Mendel, Kelvin, Pasteur, Planck, Einstein, Heisenberg, and Schrödinger) White's conclusion represents a gross oversimplification and misinterpretation of the Bible's actual mandate—which is not to say Christians have never made the same mistake. Yes, God put man "in charge" of the natural world, but as its steward and caretaker, not its master—and certainly not its rapist. Adam's "job" in Eden was to "name" each animal (Genesis 2:19), a concept that in Hebrew implies discovering its nature, its individual character and attributes, through observation and insight. Adam was the world's first research biologist, naturalist, and taxonomist. It was sin that got him "fired" from this job. Still, man was apparently on reasonably good terms with nature until the flood of Noah's day-when sin again precipitated an adversarial relationship that persists to this day (see Genesis 9:2). In other words, the problem is not Christianity—it's the sin of man: the very thing Christianity is designed to overcome. The Judeo-Christian scriptures reveal the source of the problem—and the solution, one the earth-worshipers are loath to except: reverence for the Creator.

Garreau continues. "White believed that science and technology could not solve the ecological problems they had created; our anthropocentric Christian heritage is too deeply ingrained." He bemoaned the fact that Christians see humans as "special" creatures, made as we are in the image of God: "We are not, in our hearts, part of the natural process. We are superior to nature, contemptuous of it, willing to use it for our slightest whim .... " That, however, is a leap one cannot logically make. Reverence for, and humility before, the living God does not result in contempt for nature, nor does the special place and plan God intended for mankind give us the right to plunder the planet. On the contrary, it is arrogance before God, or desperation in the face of nature, that compels fallen man to treat the environment with disrespect. For example, we Americans labor under a carefully crafted narrative of the Native American tribes' reverence for nature and their harmonious state of balance within it, and we are told we must return to this sustainable posture if we hope to survive. What we are *not* told is that in the days before Europeans brought horses to the plains, the indigenous peoples were known to drive entire herds of bison off cliffs, using the only crude and inefficient tools they had (such as prairie fires): I've got a family to feed-the *environment be damned.* No, a return to stone-age paganism is not the answer.

## The Greening of Christianity

"From today's vantage, it seems that White's counsel [sort of an ecological "Doctrine of Balaam" so to speak—to see man as merely part of nature, and not the whole point of God's Creation] has been heeded far and wide. Ecotheologies loosely based on concepts lifted from Hinduism or Buddhism have become popular in some Baby Boomer circles. Neo-pagans cheerfully accept the 'tree-hugger' designation and say they were born 'green.' And, most strikingly, Christianity has begun to accept environmentalism. Theologians now speak routinely of 'stewardship'—a doctrine of human responsibility for the natural world that unites interpretations of Biblical passages with contemporary teachings about social justice...." *Now?* On the contrary, Christians have *always* known that faithful stewardship of God's gifts and generosity of spirit are godly virtues. But these things are a long, *long* way from nature worship and socialist economic theory. Religious environmentalism and "social justice" are symptoms of an apostate church trying desperately to fill the gap left by the absence of the God they no longer consider relevant.

Roman Catholics, who have always held a rather loose grip on the sovereignty of Yahweh, were the first "Christians" to jump on the environmental band wagon. And more recently, "[Liberal] American Protestantism, too, has gone green. Numerous congregations are constructing "green churches"—choosing to glorify God not by erecting soaring sanctuaries but by building more energy-efficient houses of worship. In some denominations, programs for recycling or carpooling seem as common as food drives. Church-sponsored Earth Day celebrations are widespread...." Excuse me, but God has *never* been glorified through building magnificent structures in which to worship Him. By His own word, we are to worship Him in spirit and in truth: buildings are optional. His idea of a meeting place was the symbol-rich but absurdly modest wilderness tabernacle—a dull, gray box no bigger than your average double-wide mobile home plunked out in the middle of the desert. Soaring cathedrals were man's idea.

## Carbon Calvinism

"Beyond influencing—one might even say *colonizing*—Christianity, the ecological movement can increasingly be seen as something of a religion in and of itself. It is quasi-religious in character...generating its own set of moral values. Freeman Dyson, the brilliant and contrarian octogenarian physicist...described environmentalism as 'a worldwide secular religion' that has 'replaced socialism as the leading secular religion.' This religion holds 'that we are stewards of the earth, that despoiling the planet with waste products of our luxurious living is a sin, and that the path of righteousness is to live as frugally as possible.'

"The ethics of this new religion, he continued, 'are being taught to children in kindergartens, schools, and colleges all over the world.... And the ethics of

environmentalism are fundamentally sound. Scientists and economists can agree with Buddhist monks and Christian activists that ruthless destruction of natural habitats is evil, and careful preservation of birds and butterflies is good. The worldwide community of environmentalists—most of whom are not scientists—holds the moral high ground, and is guiding human societies toward a hopeful future. Environmentalism, as a religion of hope and respect for nature, is here to stay. This is a religion that we can all share, whether or not we believe that global warming is harmful....''' Its broad goals, perhaps; its "god," absolutely not. The Christian is commanded to love, and preserving the world for future generations to live in is consistent with that—but it's not remotely the point. The fact is, the same people who embrace environmentalism usually support the idea of abortion on demand as well—since "the fewer people plaguing the earth, the better off we are." This is hardly a "religion of hope and respect for nature."

"William P. Alston outlined in *The Encyclopedia of Philosophy* what he considered the essential characteristics of religions. They include a distinction between sacred and profane objects; ritual acts focused upon sacred objects; a moral code; feelings of awe, mystery, and guilt; adoration in the presence of sacred objects and during rituals; a worldview that includes a notion of where the individual fits; and a cohesive social group of the likeminded." Yes, and that explains why so many Christians reject the concept, seeing their faith as nothing more complicated than a familial relationship with their Heavenly Father. *Religion*, on the other hand, looks like just another Satanic counterfeit.

"Environmentalism lines up pretty readily with this account of religion. As climate change literally transforms the heavens above us [or would, if it were real], faith-based environmentalism increasingly sports saints, sins, prophets, predictions, heretics, demons, sacraments, and rituals. Chief among its holy men is Al Gore—who, according to his supporters, was crucified in the 2000 election, then rose from the political dead and ascended to heaven twice—not only as a Nobel deity, but an Academy Awards angel. He speaks of 'Creation care' and cites the Bible in hopes of appealing to evangelicals." Yes, and then he flies from one speaking venue to another in a large personal Gulfstream jet that spews out more  $CO_2$  than a small volcano. If environmentalism is a religion, then Al Gore is one of those hypocritical white-shoe TV evangelists interested only in getting rich by fleecing the flock.

"Selling indulgences is out of fashion these days. But you can now assuage your guilt by buying carbon offsets. Fire and brimstone, too, are much in vogue accompanied by an unmistakable whiff of authoritarianism: 'A professor writing in the *Medical Journal of Australia* calls on the Australian government to impose a carbon charge of \$5,000 on every birth, annual carbon fees of \$800 per child, and provide a carbon credit for sterilization,' writes Braden R. Allenby, an Arizona State University professor of environmental engineering, ethics, and law. An 'article in the *New Scientist* suggests that the problem with obesity is the additional carbon load it imposes on the environment; others that a major social cost of divorce is the additional carbon burden resulting from splitting up families.'

"Allenby, writing in a 2008 article on *GreenBiz.com*, continues: 'A recent study from the Swedish Ministry of Sustainable Development argues that males have a disproportionately larger impact on global warming ("women cause considerably fewer carbon dioxide emissions than men and thus considerably less climate change"). The chairman of the Intergovernmental Panel on Climate Change states that those who suggest that climate change is not a catastrophic challenge are no different than Hitler.... E.O. Wilson calls such people parasites. Boston Globe columnist Ellen Goodman writes that "global warming deniers are now on a par with Holocaust deniers." The sheer volume of vicious language employed to recast social and cultural trends in terms of their carbon footprint suggests the rise of what Allenby calls a dangerous new 'carbon fundamentalism...."

The whole thing would be hilarious if we didn't know they were serious. The only reason the religion of environmentalism considers  $CO_2$  an anathema is that it is supposed to be warming the earth, melting the ice caps, raising the oceans, and so forth. But although world  $CO_2$  levels *are* rising (mostly because of nations who "get a pass" from the environmentalists—like India and China), average global temperatures are *not*: the theory is blatantly false. So if  $CO_2$  *isn't* warming the planet, is it still a villain? No. In fact, it promotes more vigorous plant growth—a good thing in everybody's book. It's as if we're back at the Salem witch trials: the good citizens of the town are so righteously terrified about witches, they won't be happy until they burn *somebody* at the stake, evidence or no evidence.

Garreau points out that "many of those making the case that environmentalism has become a religion throw around the word 'religion' as a pejorative." Like me, for instance. "This disdain is rooted in an uncontroversial proposition: You cannot reason your way to faith. That's the idea behind the 'leap of faith'—or the leap *to* faith, in Kierkegaard's original formulation: the act of believing in something without, or in spite of, empirical evidence. Kierkegaard argued that if we choose faith, we must suspend our reason in order to believe in something higher than reason." Kierkegaard was wrong, of course, at least as regards Biblical Christianity. I have found that faith and reason are by no means incompatible, though reason in the absence of faith can easily lead us astray. But if we *begin* with an informed faith (in the true and living God, that is), then reason—born of a plethora of evidence—naturally follows. However (and this is important), our faith must be in Yahweh's actual truth, not our own extrapolations and

interpretations (or hallucinations) of it, however well-reasoned we think they are. If we begin putting words in His mouth, we'll again find ourselves telling Copernicus to sit down, shut up, and keep his opinions to himself.

"So those on the right side of the political spectrum who portray environmentalism as a religion do so because, if faith is inherently not achievable through rationality and if environmentalism is a religion, then environmentalism is utterly irrational and must be discredited and ignored. That is the essence of Michael Crichton's 2003 speech. 'Increasingly,' he said, 'it seems facts aren't necessary, because the tenets of environmentalism are all about belief.' Environmentalism, he argued, has become totally divorced from science. 'It's about whether you are going to be a sinner, or saved. Whether you are going to be one of the people on the side of salvation, or on the side of doom. Whether you are going to be one of us, or one of them.'"

Garreau has a lot more to say, but I think we get the idea: one's *beliefs* regarding the natural world, if formed regardless of the evidence available, are religion, not science. The funny thing is, Garreau himself seems genuinely convinced of the "catastrophic potential of global warming," which as we have seen is not supported by empirical evidence at all, but has been invented out of whole cloth by people hoping to sell carbon credits and redistribute the world's wealth—and is then propped up via fraudulent computer models and academic blackmail. Environmentalism in this regard isn't so much a religion as it is a scam foisted on the unsuspecting by the charlatans of this world. (But of course, that's another accurate—albeit cynical—definition of religion, isn't it?)

In conclusion, Larry Spargimino, in the anthology *Blood on the Altar*, identifies five myths about Judeo-Christianity that serve as the foundation of the religion of environmentalism.

1. "The Judeo-Christian belief that God assigned man to rule over the earth and have dominion has caused the exploitation and misuse of the planet." The truth is that neither Jews nor real Christians have ever been numerous enough to exploit anything of consequence, nor do their scriptures authorize any such thing.

2. "Monotheism has separated humans from their natural connection to the earth. To reverse this trend, artists, authors and educators must revive earthcentered myths that elevate goddess Mother Earth." The truth is that our "natural connection to the earth" was severed when our sin separated us from nature's Creator. Monotheism (and in reality, only one permutation of it: reverence for Yahweh, who is separate from His creation) stands in contrast with pantheism, in which "god" is "in everything," which is to say, he (or she) has no sentience, personality, or plan. And worse, since "Mother Earth" has proven so vulnerable to the thoughtlessness and incompetence of man, she makes a really poor excuse for a god. 3. "The diversity of species enriches the earth. Healthy, flourishing diversity can only be maintained if there is a substantial decrease in the human population and its interference with nature's benevolent and wise processes." The truth is that the "diversity of species" is merely evidence of the depth of the gene pool of the original "kinds" of animals that Yahweh introduced into the biosphere over the course of the fifth and sixth days of creation. 99.9% of the species that ever inhabited the earth were long extinct before man even arrived. (This is not to downplay the alarming rate of extinction that is currently plaguing our fallen world.) Ironically though, God's word *predicts* a "substantial decrease in the human population," and sooner rather than later—not to mention the total death of the world's oceans. But, ironically or not, these people who worship the creation, believing that "the ends justify the means," are destined to play a huge role in the destruction of the planet during the Tribulation, and they will suffer destruction themselves as a result. See Revelation 11:18.

4. "*Heavenly-minded Christians care little for what they see as a temporary earth that will soon be burned up.*" The truth is—well, that one actually *is* true, more or less. But until it happens, we also see the earth as a precious gift from God—one we are charged with taking care of, managing, and preserving, not destroying through avarice, arrogance, or thoughtlessness. Just because we don't worship the Earth, it doesn't mean we don't care about its well-being. A good workman takes care of his tools.

5. "By resisting the return to earth-centered religions, and by relegating them to the category of rank paganism, Christians are blocking the global movement toward the one-world religion needed to unify people and to save our planet from pollution, global warming, and thermonuclear war." I don't know whether to laugh or vomit. The truth is that the liberal pipe dream of a unity under a oneworld religion (something that's flatly prophesied in the Bible—and not as a good thing) will be the very crisis that finally brings the world to its ecological knees. On their watch (i.e., *after* the Christians have been raptured) the seas will die, the air will become so polluted only two thirds of the sunlight will penetrate it, one third of the earth's surface will burn, and the vast majority of the human population will die.

Therefore, this time of trial the world is about to endure will be limited by God to seven years; and the reign of Satan's Antichrist—the focus of the one-world religion so dear to the heart of the environmentalists—will occupy only the latter half of that, a mere 42 months. Any longer than this, and there would be no "environment" left to preserve (see Matthew 24:22). The Christians will be gone *years* before this worldwide religion is established. After the rapture, we will no longer be in a position to "block" anything, as much as we'd like to continue warning people of the impending danger. Even then, God is not quite done with

the earth: He's going to need it for at least another thousand years. And according to God's word, this final millennium will be characterized by the healing of the earth, environmental restoration, peace among men, reverence for God, and ecological fecundity the likes of which the world hasn't seen since the days of Eden.

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One final subset of the Religion of Denial needs to be explored—the *cult of power* that endeavors to run the world today, either from upon the throne or (more likely) from behind it. Power, however, is but one third of an unholy trinity of treachery that when combined precipitates misery and woe upon mankind. The other two ingredients are wealth and pride.

Neither power nor wealth are evil in themselves (though they're *always* potentially dangerous, both to those who possess them and those who do not). They are, rather, spiritually neutral. They can be the result of God's blessing as easily as the fruit of greed and lust; they can both be used for either good or evil in this world. It is that third component—*pride*—that makes power and wealth a force for wickedness.

"Power" in scripture is usually spoken of in spiritual terms—the strength of God as manifested in the life of Christ or wielded vicariously through His followers through the indwelling of the Holy Spirit. Upon reflection, I get the feeling that wielding authority over one's fellow man in this life is invariably a usurpation of Yahweh's prerogative to some extent—He alone has the right to rule. We, on the other hand, are to use whatever "power" (the ability to accomplish things) we've been given to serve our brothers in love. Moses is the model—though he wielded the very power of God during the exodus, he *led* Israel; he did not rule over it.

Although all power in this universe flows ultimately from its Creator Yahweh, we find that Satan wields power (of sorts) as well—the ability to oppress and tempt mankind, to the extent that God allows. As inconvenient as it is for us, this is apparently necessarily in order for us to exercise the free will Yahweh bestowed upon us. In other words, we have been given a choice as to whose influence to submit to—God's or our adversary's. Without the option of choosing evil, choosing good is meaningless. At the same time, God has given some people the leadership ability, organizational skills, or charisma needed to direct or govern society. How they use these gifts says a lot about the choices they've made. Abraham Lincoln once said, "Nearly all men can stand adversity, but if you want to test a man's character, give him power." It's one thing to have power thrust

upon you, receiving it as a mandate for service; it's something else entirely to covet it, lust after it, and to use it to elevate yourself above your peers.

Wealth too presents an opportunity to show one's true colors—to reveal what choices he has made. Solomon (one of the wealthiest men of his age, thanks to the legacy left him by his father David) says this of wealth gained by honest labor: "It is good and fitting for one to eat and drink, and to enjoy the good of all his labor in which he toils under the sun all the days of his life which God gives him; for it is his heritage. As for every man to whom God has given riches and wealth, and given him power to eat of it, to receive his heritage and rejoice in his labor—this is the gift of God. For he will not dwell unduly on the days of his life [a reference to a clear conscience], because God keeps him busy with the joy of his heart." (Ecclesiastes 5:18-20) Solomon was renowned for his wisdom, but it appears he wasn't much of a socialist.

Agur, son of Jakeh (who was presumably in a bit better position to be objective about money), asks this of God: "Give me neither poverty nor riches. Feed me with the food allotted to me, lest I be full and deny You, and say, 'Who is Yahweh?' Or lest I be poor and steal, and profane the name of my God." (Proverbs 30:8-9) Although some are gifted with great riches and although we will always have the poor among us (see Mark 14:7), God's ideal society seems to entail a disproportionately large middle class, which perhaps explains why godless societies tend to end up with a huge disparity between the few elites at the top and the vast majority of poor at the bottom of the socio-economic ladder—with very few people in between.

It doesn't have to be that way. Yahweh promised Israel that if they faithfully kept the Law of the Sabbatical Year (something they subsequently failed to do), poverty would virtually disappear in the Land: "At the end of every seven years you shall grant a release. And this is the manner of the release: every creditor shall release what he has lent to his neighbor. He shall not exact it of his neighbor, his brother, because Yahweh's release has been proclaimed. Of a foreigner you may exact it, but whatever of yours is with your brother your hand shall release. But there will be no poor among you; for Yahweh will bless you in the land that Yahweh your God is giving you for an inheritance to possess—if only you will strictly obey the voice of Yahweh your God, being careful to do all this commandment that I command you today. For Yahweh your God will bless you, as he promised you, and you shall lend to many nations, but you shall not borrow." (Deuteronomy 15:1-6)

There's nothing intrinsically wrong with wealth, provided we come by it honestly—through hard work, innovation, and insight (or even the old-fashioned way: through dumb luck). Wise investing is encouraged, but predatory business practices are tantamount to stealing—and sometimes it's hard to tell the difference. Blessed is the man who is able to pass a financial legacy down to his children; cursed is he who built that legacy by exploiting the poor. Wealth is a test: even if we come by it honestly, it is to be seen as a gift, the blessing of God—whom we are expected to honor by using those riches to demonstrate His love. We are not to desire wealth for its own sake, but rather receive it (if it comes) as a challenge, a dare of sorts from God to use it wisely. If it does not come, remember that there's no shame in being poor (though it's no great honor, either). And we should always remain aware that wealth is relative: there will always be someone richer, and someone poorer. We are to remain content and faithful in whatever state we find ourselves, working to improve our lot if and when the opportunity arises. But always remember the Tenth Commandment: we are not to covet what belongs to someone else.

Power and wealth, then, are both spiritually impartial. It is only when the third ingredient, pride, is added that we know for sure we're in trouble, for pride betrays a lack of reverence for Yahweh, and it reveals a lack of love for one's fellow man—making both power and wealth lethal weapons. Indeed, the danger with wealth and power is that they can *encourage* pride in those who wield them. As Agur noted above, wealth and power can tend to makes us forget our utter dependence on Yahweh. I am reminded that God gave the richest, most powerful monarch of his day, Nebuchadnezzar II of Babylon, a seven-year object lesson teaching him that very thing. If I were a rich and powerful man, I would find it extremely instructive to read and ponder the fourth chapter of the Book of Daniel at least once a month.

You know the story: this "king of kings" (see Daniel 2:37) was humbled by God, who warned him that he would lose his sanity for seven years. A few salient passages bear repeating to this day. After identifying the king as the subject of his own terrifying vision, Daniel says, "Therefore, O king, let my advice be acceptable to you; break off your sins by being righteous, and your iniquities by showing mercy to the poor. Perhaps there may be a lengthening of your prosperity." (Daniel 4:27) A year passed and nothing happened, so Nebuchadnezzar once again let his pride sneak up on him: "The king spoke, saying, 'Is not this great Babylon, that I have built for a royal dwelling by my mighty power and for the honor of my majesty?" (v. 30)

It was at that moment that the dream came true. He immediately lost his mind, and was driven from power, having been told by God that "seven times shall pass over you, until you know that the Most High rules in the kingdom of men, and gives it to whomever He chooses." (v. 32) After seven years had passed, he regained his sanity, and (even more miraculously, to my mind) was restored to his former state of honor, wealth, and power—along with a new-found sense of humility. And he recorded this for our edification: "And at the end of the time I, Nebuchadnezzar, lifted my eyes to heaven, and my understanding returned to me; and I blessed the Most High and praised and honored Him who lives forever: for His dominion is an everlasting dominion, and His kingdom is from generation to generation. All the inhabitants of the earth are

reputed as nothing. He does according to His will in the army of heaven and among the inhabitants of the earth. No one can restrain His hand or say to Him, 'What have You done?'...Now I, Nebuchadnezzar, praise and extol and honor the King of heaven, all of whose works are truth, and His ways justice. And those who walk in pride He is able to put down." (vs. 34-35, 37) Oh, how I'd love to hear the president of the United States talk like that!

Note that God did not begrudge Nebuchadnezzar his wealth and power. In fact, we have every reason to believe that He had bestowed these things upon him in the first place so he could fulfill the role Yahweh had ordained for him concerning apostate Judah—including destroying the temple of Solomon. It was the *pride* of the king with which God took issue.

We have no way of statistically measuring pride, of course. We'll leave that one up to God to sort out. But *Forbes Magazine* does keep track of wealth and power. Their 2014 lists of the world's ten most wealthy and powerful individuals are revealing—but not terribly surprising—educating us on what it takes to attain wealth and power these days.

The ten richest *individuals* (they didn't track multi-generational family fortunes for this list) are as follows: #10. Jim Walton (of Walmart Stores, \$34.7 billion). #9. Christy Walton (widow of John Walton of Walmart, \$36.7 billion). #8. Sheldon Adelson (Las Vegas Sands Corp., \$38 billion). #7. David Koch (Koch Industries, \$40 billion). #6. Charles Koch (Koch Industries manufacturing, energy, etc., \$40 billion). #5. Larry Ellison (Oracle software, \$48 billion). #4. Warren Buffet (Berkshire Hathaway investments, \$58.2 billion). #3. Amancio Ortega (Inditex clothing, \$64 billion). #2. Carlos Slim Helu (Telmex, America Movil, \$73.2 billion). And #1. Bill Gates (Microsoft, \$76 billion.)

In very rough terms, then, the ten richest people in the world got that way through successes in a wide range of endeavors—computer technology, telecommunications, apparel, investments, manufacturing, petrochemicals, hospitality and gaming, and retail sales (though most of them have fingers in many and varied pies). Every single person on the list is famous for his or her philanthropy—though again, the recipients of their generosity vary widely.

Let us compare all that to the *Forbes* ten-most-*powerful* list for 2014. #10. Larry Page (Google). #9. Sergey Brin (Google). #8. Mario Draghi (European Central Bank). #7. Bill Gates (Microsoft). #6. Janet Yellen (Federal Reserve Bank). #5. Angela Merkel (Chancellor of Germany). #4. Pope Francis (leader of the Roman Catholic Church). #3. Xi Jinping (President of China, General Secretary of its Communist Party, and Chairman of the Chinese military). #2. Barack Obama (President of the United States). And #1. Vladimir Putin (President of Russia). Here the measure of power is not what you own, but who you control (or at least influence). Not surprisingly, political leaders of the most influential nations top the list, along with the leader of the world's number-one religious splinter group. The world's two largest central banks are represented because of the golden rule ("He who has the gold gets to make the rules"). And the rest are technology mavens who, one way or another, manipulate the flow of data we in the "information age" can't seem to live without.

In former years, the American president would "automatically" have garnered the top spot, but under Mr. Obama's disastrous tenure, we have lost so much international prestige, political influence, military ability, economic clout, and moral authority, that we find ourselves plunging headlong toward our new status—if the trend continues—as a second-tier has-been nation. The Psalmist writes, "Yahweh brings the counsel of the nations to nothing; He makes the plans of the peoples of no effect. The counsel of Yahweh stands forever, the plans of His heart to all generations. Blessed is the nation whose God is Yahweh, the people He has chosen as His own inheritance." (Psalm 33:10-12) Too bad we forgot that. But then again, America's temporary demise was prophesied in Isaiah 18. (See Chapter 11 of this book, "The Gap," for the details.)

You'll note that only one person, Bill Gates (founder and CEO of Microsoft) made both lists. According to *Forbes*, he is not only the world's richest man, but is also the seventh most powerful person on earth. So perhaps it would be instructive to briefly study how he uses his money to wield power, since he doesn't run a government or central bank. An article appearing in the Catholic lay periodical Crisis Magazine entitled "The Ambitions of Bill and Melinda Gates: Controlling Population and Public Education" (by Anne Hendershott, March 25, 2013) hits the high spots. Her thesis, in a nutshell, is that Bill Gates has bought into the global warming myth to such an extent that he feels it his duty to stop all anthropomorphic  $CO_2$  emissions by reducing the world's population. His complex, almost megalomaniacal, scheme for accomplishing this goal includes imposing an ultra-liberal curriculum in our schools (effectively robbing America's youth of the ability to think for themselves), third-world vaccination programs (population control measures cleverly disguised as health care), and so forth. And they are perfectly willing to spend billions of their own dollars to achieve their dubious goals. Some highlights:

"Continuing their commitment to controlling global population growth through artificial contraception, sterilization, and abortion initiatives, Microsoft founder and philanthropist, Bill Gates and his wife, Melinda, self-described 'practicing' Catholics, are now attempting to control the curriculum of the nation's public schools. Subsidizing the Common Core State Standards in English language arts and mathematics, the Bill and Melinda Gates Foundation has committed more than \$76 million to support teachers in implementing the Common Core—a standardized national curriculum..." in which "'Fact-based' books on climate change are replacing classic works of literature because they are viewed as offering students an opportunity to learn 'science.' *Freakonomics*—a book that has already been a favorite of public school teachers—is preferable to Poe because students will learn about the positive effects of abortion on reducing crime rates by reducing the population of those more likely to commit crime." In other words, it's Sangeresque race-based genocide in a suit and tie. It's no wonder Catholics are alarmed about Gates' agenda, though I'd imagine the idea of saving the human race by killing off the humans (beginning with poor blacks) probably doesn't make much sense to Protestants, either.

"Bill Gates revealed his own population goals in February, 2010, at the invitation-only Technology, Entertainment and Design Conference in Long Beach, California, when he gave his keynote speech on global warming: "Innovating to Zero!"... Gates stated that CO<sub>2</sub> emissions must be reduced to zero by 2050 and advised those in attendance that population had much to do with the increase in CO<sub>2</sub>." He must realize, of course, that he himself exhales carbon dioxide. But if you'll recall, in a previous appendix we established that although CO<sub>2</sub> rates are indeed climbing worldwide, average global temperature is not—rendering the whole premise of Gates' scheme fallacious.

"Claiming that each individual on the planet puts out an average of about five tons of  $CO_2$  per year, Gates stated that 'Somehow we have to make changes that will bring that down to zero.... It has been constantly going up. It's only various economic changes that have even flattened it at all.' To illustrate, Gates presented the following equation:  $CO_2$  (total population-emitted  $CO_2$  per year) = P (people) x S (services per person) x E (average energy per service) x C (average  $CO_2$ emitted per unit of energy). Gates told the audience that 'probably one of these numbers is going to have to get pretty near to zero. That's a fact from high school algebra.' For Gates, the P (population) portion of the equation is the most important: 'If we do a really great job on new vaccines, health care, and reproductive health services, we could lower that by perhaps 10 or 15 percent.'" Note: vaccines are no longer a health care strategy but a cash cow for big pharma—in which Gates has invested heavily; and "reproductive health services" is actually a sick euphemism for easy access to abortion, beginning with minorities, the poor, and the teeming populations of the third world.

"Gates maintains that improvements in health care—including an expansion of the administration of vaccinations—will encourage families to reduce the number of children they desire to have. And, in an ongoing attempt to expand the types of birth control, Gates has spent millions of dollars on research and development. According to *Christian Voice*, a few years ago the Gates Foundation awarded a grant of \$100,000 to researchers at the University of North Carolina, Chapel Hill, to develop a new type of ultrasound described as a 'non-invasive form of birth control for men' which would make a man infertile for up to six months...." On the bright side, he's willing to spend his own money to destroy the human race—a refreshing change from the usual practice of using *my* hard earned tax dollars without my knowledge or consent.

"On May 17, 2002, the *Wall Street Journal* reported that the Bill and Melinda Gates Foundation had purchased shares in nine of the largest pharmaceutical companies valued at nearly \$205 million. Acquiring shares in Merck, Pfizer, Johnson and Johnson Wyeth, Abbott Labs, and others, the Gates Foundation continues a financial interest in common with the makers of AIDS drugs [which don't cure AIDS, you understand, but do keep the afflicted alive longer—creating obscene profits in the process], diagnostic tools, vaccines, and contraceptives. But, the commitment to global population control goes well beyond financial interests. It is likely that the Bill and Melinda Gates Foundation will continue its commitment to global population control, and now, curriculum creation in the nation's schools because they truly believe that they know better than anyone else how we all should live...."

I might interject at this point that Gates is also committed to another Last Days objective as well—a cashless society, one of the keys to making the prophesied "mark of the beast" a functional reality. Kit Daniels (*Infowars.com*, January 22, 2015) writes, "Bill Gates is now promoting 'digital currency' in thirdworld countries, which will make the poor even more dependent on central banks while also turning them into guinea pigs for the development of a 'cashless society' in the U.S. and Europe.... 'The key to this will be mobile phones,' he wrote. 'Already, in the developing countries with the right regulatory framework, people are storing money digitally on their phones and using their phones to make purchases, as if they were debit cards. By 2030, two billion people who don't have a bank account today will be storing money and making payments with their phones.' But this will only enslave the poor into an electronic monetary system they don't control, allowing central banks and the government unparalleled ability to confiscate money at will through taxes and 'bail-ins.'" 2030. Interesting target date, Bill.

But I digress. Back to Anne Hendershott's article: "This commitment to a distorted definition of social justice by Melinda and Bill Gates will likely continue because they have been led to believe that such control is what is best for people. The Core Curriculum is really just another component of population control—it is used to help teach children the 'facts' about climate change and problems of overpopulation. Indeed, the population agenda is a trap that many wealthy, highly intelligent people have fallen into in the past. From the wealthy eugenics

supporters of Planned Parenthood's Founder Margaret Sanger, to the Rockefeller family and their population control initiatives, this work continues today through their heirs—heirs like David Rockefeller—an ally of Bill and Melinda Gates."

The Gates agenda is well documented and easily researched, though the holders of older, more entrenched family fortunes tend to hold their cards a bit closer to the vest. David Rockefeller is something of an exception. He is known to hold the same quasi-genocidal ideals as Bill Gates—all in the name of "saving the planet," of course. But he is better known for his tireless efforts on behalf of the so-called "New World Order," a system of governance in which the whole world is run by a single central ruling body—the super elite (sometimes referred to as the Illuminati). It's wealth plus power plus pride again.

In an address to a Trilateral Commission meeting in June of 1991, Rockefeller declared, "We are grateful to the Washington Post, the New York Times, Time Magazine and other great publications whose directors have attended our meetings and respected the promises of discretion for almost forty years. It would have been impossible for us to develop our plan for the world if we had been subject to the bright lights of publicity during those years. But the world is now more sophisticated and prepared to march towards a world-government [like lemmings toward a cliff, I'm thinking]. The supranational sovereignty of an intellectual elite and world bankers is surely preferable to the National autodetermination practiced in past centuries." He also noted that he had been accused of "conspiring with others around the world to build a more integrated global political and economic structure—One World, if you will. If that's the charge, I stand guilty, and I am proud of it."

The Rockefellers, heirs to the vast Standard Oil fortune built by John D. Rockefeller, are no longer listed among the world's wealthiest families, due largely to a program of aggressive philanthropy begun during John's later years, and to the American tradition of dividing family fortunes between heirs (in contrast to the European system of primogeniture, in which the eldest son inherited the lion's share). His fortune was once valued at the equivalent of \$336 billion (adjusted for inflation in 2007 dollars), according to Forbes. "According to some methods of wealth calculation, Rockefeller's net worth over the last decades of his life would easily place him as the wealthiest known person in recent history. As a percentage of the United States' GDP, no other American fortune including those of Bill Gates or Sam Walton—would even come close."— *Wikipedia.* John D. Rockefeller was both a Christian and a robber baron (or so he was characterized)—a study in contrasts.

But apparently, the apple had rolled some distance from the tree by the turn of the twenty-first century. Something tells me John D. wouldn't remotely recognize his grandson's Illuminati agenda. Although the wealth (though still considerable) isn't what it used to be, its presence has been more than compensated for by a lust for power and a sense of arrogant entitlement rivaled by few in this world. *PhilanthropyRoundtable.org* reports, "No country in the history of the world has created so much wealth as has the United States. Nor has any country created so many fortunes of legendary size. The names are still household words: Vanderbilt, Astor, Carnegie, Rockefeller, Morgan, Gould, Mellon, Harriman, Frick, Huntington, Crocker, Flagler, Duke, and Hearst. And yet none of those names are among the great American fortunes of today. Indeed, only three of those names—Rockefeller, Hearst, and Mellon—make the Forbes list of today's 400 largest fortunes, and not one is near the top....

"While John D. Rockefeller Sr. was worth perhaps \$2 billion in 1915 (a year when the federal government spent only \$746 million), his grandson David Rockefeller stands at 147 on the Forbes list. By far the wealthiest living Rockefeller—largely on account of a long, successful career in finance—David in 2009 had a net worth of \$2.2 billion, about what his grandfather was worth in nominal terms a century ago. Taking inflation into account, however, his fortune is only about 10 percent the size of his grandfather's."

The key to understanding David Rockefeller's pride-driven agenda is in that little phrase, "successful career in finance." As we have seen, two of the "most powerful people on earth" are deemed so because they head the central banks of the United States (i.e., the Federal Reserve Bank) and the European Union. When one ponders the immense amount of debt owed by nations large and small in today's world, the question of who, precisely, is owed all this money eventually presents itself. If you'll recall, we addressed this issue in our two chapters on Babylon (14 and 20) and Appendix 8, on Geopolitics. Central banks are not owned by their respective governments, but are privately held corporations, formed with the express purposes of creating wealth out of thin air and wishful thinking—and loaning it at interest to world governments. These loans are never expected to be paid off (and at this late date, never could be anyway), so the interest piles up forever (in theory, at least) until the owners of the central banks own virtually everything on planet Earth.

The most entrenched international-banking family in the world, however, is not the Rockefellers, but the Rothschilds. *TheRichest.com* informs us that, "You can browse through Forbes' extensive rich list and not find a single mention of the name 'Rothschild' in their list of the 500 wealthiest people on Earth. This is because the Rothschild's wealth has been distributed amongst hundreds of heirs throughout the years, and has therefore diluted each individual's personal fortune. With this being said, it is estimated that the Rothschild Family as a whole still possess in the region of \$350 billion USD in assets throughout the world. Bear in mind that this is a low estimation. Due to their great secrecy, the sheer amount of assets they hold, and the scale of their operations, it is difficult to estimate exactly how much the Rothschild Family are worth. Higher estimates have placed it in the region of \$1 trillion USD, making them by far the wealthiest family on Earth." Some of the more "hysterical" sources (who shall remain unnamed) peg their wealth at as much as *\$500 trillion*!

"Despite the dilution of the Rothschild Family's wealth, there are still a number of extraordinarily wealthy individuals bearing the Rothschild surname. The largest of these fortunes belongs to the British financier Jacob Rothschild, who is worth around \$50 billion USD, whilst another British financier, Sir Evelyn De Rothschild, has a fortune of \$20 billion USD." But as I said, unlike Bill Gates and David Rockefeller, the Rothschilds prefer to keep their resources and agenda a secret, for their goal (with that of other international bankers) is to end up owning (and thus controlling) *the whole world*.

I realize I've quoted from this passage before, but it bears repeating loud and clear in these Last Days: Yahweh is not unaware of these behind-the-scenes power grabs. When the time is right, He will right all wrongs and settle all debts. So the prophet Habakkuk writes: **"Look at the proud! They trust in themselves, and** their lives are crooked. But the righteous will live by their faithfulness to God. Wealth is treacherous, and the arrogant are never at rest. They open their mouths as wide as the grave, and like death, they are never satisfied. In their greed they have gathered up many nations and swallowed many peoples....

"But soon their captives will taunt them. They will mock them, saying, 'What sorrow awaits you thieves! Now you will get what you deserve! You've become rich by extortion, but how much longer can this go on?' Suddenly, your debtors will take action. They will turn on you and take all you have, while you stand trembling and helpless. Because you have plundered many nations, now all the survivors will plunder you. You committed murder throughout the countryside and filled the towns with violence...." As far as "murder" is concerned, think beyond crime and pointless war. As for me, I'm thinking about some two billion children aborted in the womb over the past century—with the assistance and encouragement of the secular humanist death machine.

"What sorrow awaits you who build big houses with money gained dishonestly! You believe your wealth will buy security, putting your family's nest beyond the reach of danger. But by the murders you committed, you have shamed your name and forfeited your lives. The very stones in the walls cry out against you, and the beams in the ceilings echo the complaint. What sorrow awaits you who build cities with money gained through murder and corruption! Has not Yahweh of Heaven's Armies promised that the wealth of nations will turn to ashes? They work so hard, but all in vain! For as the waters fill the sea, the earth will be filled with an awareness of the glory of Yahweh." (Habakkuk 2:4-14 NLT)

Secular humanists, of course, are counting on that *not* happening. And it would appear that they are terrifyingly close to realizing their dream of a one-

world government controlled by their own puppets. Perhaps the most telling indicator is that of fiat currency—a nation's "opportunity" to saddle itself with vast sums of unrepayable debt, ostensibly enabling it to live beyond its means, while in reality enslaving itself to the holders of such debt. So let's "follow the money," with an eye toward discovering how close we actually are to total world bondage, achieved with the chain of crushing national debt.

As of the year 2000, there were only seven nations left in the entire world that did not have a Rothschild-controlled central bank. They were, not surprisingly, the planet's "bad boys," the rebels, the rogues: Afghanistan, Iraq, Sudan, Libya, Cuba, North Korea, and Iran. They're all considered "uncivilized," and they're all, you'll note, either Islamic or Communist states of the "worst" sort—that is, run either by dictators or ideologies that are out of step with world peace and security. They "don't play the game."

I'm not saying these seven nations are anything other than what they seem the home of tyranny and institutionalized oppression. But in the context of the growing power of the "one-world" movement, they are the coal-mine canaries tasked with telling the rest of the world just how close we are to being swallowed whole in Habakkuk 2-style financial aggression. By 2003 (in the wake of the events of September 11, 2001), two of these rogue nations had been invaded in righteous indignation. And Iraq and Afghanistan were subsequently crossed off the shrinking list of countries without Rothschild-controlled central banks. It's enough to turn someone into a 9/11 conspiracy theorist.

By 2011 (i.e., in the wake of the "Arab Spring"), two more Islamic rogue states, got crossed off the central bankers' bucket list. Libya and the Sudan (in regions known as Phut and Cush respectively in Biblical terminology—see Ezekiel 38:5) all of a sudden got Rothschild religion. At the time of this writing, then, there are only *three* nations left without a Rothschild-backed central bank: Cuba, Iran, and North Korea. Call me crazy, but could this explain Mr. Obama's sudden and inexplicable "warming" toward both Cuba and Iran—two nations who have for decades on end been the implacable enemies of the U.S. (you know, the nation the president swore to *defend*)? And if I may don my amateur-prophet propeller beanie for a moment, don't be surprised if relations between North Korea and the western world warm up considerably during the remaining couple of years of Mr. Obama's presidential term. (Oops. I didn't even get this posted before he made the first overture. I just *hate it* when I'm right all the time.)

If I didn't know better (and actually, I *don't*) I'd say the behind-the-scenes strings are being pulled by the central banking consortium (something the Bible suggests is part of "Babylon")—and that sometime before the fourth decade of the twenty-first century, the entire world will find itself under the thumb of an increasingly powerful central government—one up to its ears in hock to the House of Rothschild and their allies. And it will have been the atheistic secular humanists who put us there.

Recalling our prophetic scripture study, however, you know it doesn't end there. Putting the puzzle pieces together, it appears that the bankers of Babylon will make the worst possible tactical error in elevating their intended puppet, the charismatic European political leader identified in scripture as the Man of Sin, a.k.a. the Antichrist, to the position of ultimate world authority—assuming they can control and manipulate him as they have practically every other national leader on earth for the past century.

They've finally met their match. The Antichrist will betray them, destroy them, and take over their whole one-world scheme as a going concern. As it was shown to John, "The ten horns which you saw on the beast [i.e., the allies of the Antichrist], these will hate the harlot [Babylon—including the central banks represented by the Rothschilds], make her desolate and naked, eat her flesh and burn her with fire. For God has put it into their hearts to fulfill His purpose, to be of one mind, and to give their kingdom to the beast [the Antichrist], until the words of God are fulfilled. And the woman whom you saw is that great city [Greek *polis*—read: "system"] which reigns over the kings of the earth." (Revelation 17:16-18)

It's the height of irony, if you think about it. In their enthusiasm for controlling and owning the Earth, the secular humanists will be instrumental in putting in power the one man on earth who is capable of destroying them. He is described in scripture like this: "He shall speak pompous words against the Most High, shall persecute the saints of the Most High, and shall intend to change times and law." (Daniel 7:25) "A king shall arise, having fierce features, who understands sinister schemes. His power shall be mighty, but not by his own power. He shall destroy fearfully, and shall prosper and thrive. He shall destroy the mighty [oops], and also the holy people." Note that the "mighty" people and the holy (set apart) people are two different groups. "Through his cunning He shall cause deceit to prosper under his rule." (Daniel 8:23-25) "The king shall do according to his own will: he shall exalt and magnify himself above every god, shall speak blasphemies against the God of gods, and shall prosper till the wrath has been accomplished; for what has been determined shall be done. He shall regard neither the God of his fathers nor the desire of women, nor regard any god; for he shall exalt himself above them all." (Daniel 11:36-37) Can they not see that the ambitions of such a man cannot be contained?

With his profile judiciously edited like this, of course, the Antichrist (called here "the king who shall arise") may sound like just the kind of guy the atheists are looking for to front their one-world scheme. He'll be charismatic, ruthless, and shrewd, not impressed with any god, and he might even be a homosexual. Bonus! But the larger context of each of these passages reveals that the Antichrist can't be trusted to toe Babylon's line: he's got his own agenda, and it involves the most stunning betrayal since Judas Iscariot: Satan's "man of sin" throwing his own powerful secular humanist stooges (Babylon, including the international bankers) under the bus of human history. As so often happens, evil is evil's worst enemy. Read on:

"Then the saints shall be given into his hand for a time and times and half a time. But the court shall be seated, and they shall take away his [the Antichrist's] dominion, to consume and destroy it forever. Then the kingdom and dominion, and the greatness of the kingdoms under the whole heaven, shall be given to the people, the saints of the Most High. His kingdom is an everlasting kingdom, and all dominions shall serve and obey Him." (Daniel 7:25-27) That's right, you Illuminati schemers: your boy is a loser. He'll only get three and a half years in power (less time than the *worst* American presidents), and then he's toast. You guys are nothing but this parasite's host, just as you yourselves feasted on the carcass of world productivity and freedom for so long: "And he [the Antichrist] shall exalt himself in his heart. He shall destroy many in their prosperity. He shall even rise against the Prince of princes, but he shall be broken without human means." (Daniel 8:25) Who do you think these "prosperous" people whom the Antichrist will destroy might be? Now that you Rothschild types finally own everything, do the math: it's *you*. The Beast is the son of the father of lies. You'd be a fool to trust him to toe your line, but trust him you shall.

"But in their place [i.e., in place of the gods *not* worshiped by the Antichrist] he shall honor a god of fortresses; and a god which his fathers did not know he shall honor with gold and silver, with precious stones and pleasant things. Thus he shall act against the strongest fortresses [including the international bankers who control the planet] with a foreign god, which he shall acknowledge, and advance its glory; and he shall cause them to rule over many, and divide the land for gain." (Daniel 11:38-38) The secular humanists will (at first) love the idea that the Antichrist is irreligious—neither a nominal Christian, Muslim, Hindu, nor Jew, following no god they've ever heard of, real or imagined. No, he honors a "foreign god," Satan himself—the one whose plan they've been unwittingly implementing for centuries. For some reason, they'll never figure any of this out until it's far too late to save themselves, or their riches.

John explains: "All the world marveled and followed the beast. So they worshiped the dragon who gave authority to the beast; and they worshiped the beast, saying, 'Who is like the beast? Who is able to make war with him?' And he was given a mouth speaking great things and blasphemies, and he was given authority to continue for forty-two months [just as Daniel had described him]. Then he opened his mouth in blasphemy against God, to blaspheme His name, His tabernacle, and those who dwell in heaven [the raptured saints, whom he can't touch, so he's reduced to bad-mouthing them]. It was granted to him to make war with the saints [the belatedly redeemed, those who had been left behind at the rapture—both newly repentant Jews and "Laodicean" Christians] and to

overcome them. And authority was given him over every tribe, tongue, and nation. All who dwell on the earth will worship him, whose names have not been written in the Book of Life of the Lamb slain from the foundation of the world." (Revelation 13:4-8) Once the Antichrist achieves authority borne of popular acclaim—something beyond what the powers behind the scene *gave to him*, just as they had countless rulers before him—he will turn on them, destroy them, and rule the entire world himself in their stead. It's what the Hindus would call karma, I guess.

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The atheists, in the end, will be proven wrong. They will not enjoy the victory they'd coveted right up until their bloody and ignominious end. Rather, the God they say doesn't exist will reign upon the earth personally (in the form of the glorified Messiah-King, Yahshua) for a thousand years. Ironically, the atheists' denial concerning spiritual realities will leave them vulnerable not only to God's wrath, but also to Satan's schemes (though God Himself won't proactively attack them—His "wrath" will mostly consist of stepping out of the way for a time and allowing men to reap what they've sown). They're thinking, *if God doesn't exist, neither does the devil, right*? As it turns out, what you don't know *can* hurt you.

As the Tribulation begins, however, they will be rubbing their hands together in gleeful anticipation of their final triumph over free will and what they regard as the superstitious nonsense that has held the world back from its glorious destiny under their rule for so long: religion, faith, conscience, and those inconvenient moral absolutes. They'll be following John Lennon's playbook: "Imagine there's no heaven; it's easy if you try; no hell below us; above us only sky...." No God, no guilt, no problem.

Their strategy will involve elevating "their man" to the status of diplomatic miracle worker as he introduces—and pushes through to fruition—a plan to create "permanent peace" in the Middle East. The Jews are promised secure borders and a temple in Jerusalem as a symbol of good faith; and the Muslims are given the West Bank as a "Palestinian state." As Neville Chamberlin put it (right before World War II broke out in Europe), it's "peace in our time." Of course, nobody who knew anything about Islam would have guessed that the peace would hold. But it *will* hold—for about a year, anyway, enough time for the Jews to build a magnificent new temple on the temple mount. By the time the Muslims actually *do* attack, the vaunted diplomat will have achieved unprecedented international popularity. In order to maintain that reputation, however, he will be forced to defend the skinny new Israel against the invading Islamist hordes—something only an atheist couldn't have seen coming.

As the Muslims invade Israel from the north and threaten from the south, several unexpected things will happen in quick succession. (1) God—Yahweh will annihilate the forces of Islam within Israel through unmistakably miraculous means. (2) In order to salvage his reputation (and obfuscate God's role), the diplomat-the one we know as the Antichrist-will initiate a massive thermonuclear attack against Magog—i.e., the homelands of the invading Islamic forces. (3) This will precipitate an escalation of war throughout the western world. And now that nukes have been introduced, all pretense of restraint is dropped: it's all-out nuclear war involving one third of the earth's land surface—the Middle East, Europe, Russia, North Africa, and America. The war, with the resulting disease and famine that will inevitably follow, will kill one quarter of the earth's population. (4) Grasping what looks like a golden post-apocalyptic opportunity, the Antichrist will make his move toward "Messiah" status-seizing the assets of all of the international bankers who put him in power (along with what's left of dar al-Islam's and the Vatican's vast wealth as well). He will then arrange to have himself crowned as the "Emperor of Earth," the undisputed leader of the oneworld government the atheistic secular humanists always said they wanted. But he will leave them with *nothing*: no wealth, no power, and no influence (and unless I miss my guess, no life, either).

That's it in a nutshell—my take on the Last Days role and fate of the Religion of Denial. It's not a pretty sight. Having spent the past couple of centuries as villains—doing everything they could to separate people from their Creator—the atheists and secular humanists will end up victims in (and of) the world system they themselves created. It's the ultimate answer to Sun Tsu's well-worn mythical maxim—that "the enemy of my enemy is my friend." The atheists had concluded that they could side with Satan on every issue that came along (assuming that if the God they hated didn't exist, then Satan must not either), only to discover in the end that Satan is real, powerful, and willing to betray absolutely anyone even his closest and most valuable allies. Assuming the Adversary to be a "religious myth" can be a miscalculation of catastrophic proportions.

Since faith is required in order to have a relationship with God, the atheists never tired of gleefully calling Him the believers' "imaginary friend." Eventually, they will experience the magnitude of that blunder as well. I'll grant you, putting one's faith in Yahshua can seem counterintuitive—no mere human would have invented a system of salvation like this, for folks don't tend to believe what they can't see. But Yahshua said, "For what profit is it to a man if he gains the whole world, and loses his own soul? Or what will a man give in exchange for his soul? For the Son of Man will come in the glory of His Father with His angels, and then He will reward each according to his works." (Matthew 16:26-27) Only an atheist would throw away his own soul in an attempt to "gain the whole world." But perhaps only a God with an

overdeveloped penchant for patience would allow him to come within sight of that goal, only to see it snatched away at the last possible moment.

# The Religion of Death

The third of the four demographically matched religious traditions in today's world is Islam. Of course, it's just as divided as the splintered hodgepodge of Eastern religions we reviewed, and it's even more dangerous and destructive as the Religion of Denial—atheistic secular humanism—that we just visited. Like the fourth group (liturgical Christianity) it is supposed to be a religion based on what "god" told its "prophets" and "apostles," (though in reality, Islam has but one). Each of these four broad religious traditions, you'll recall, now claims 21-22% of the world's population (leaving Evangelical Christianity, Judaism, and a number of miscellaneous cults and sects sharing the remaining fourteen percent).

Although it's definitely a "belief system" (based, like secular humanism, on things that must be taken on faith if at all) Islam in its "pure" form is best described as a *political* doctrine with religious trappings—sort of like Nazism under Hitler. It began early in the seventh century A.D. in Mecca, a backwater town in the Arabian Peninsula, home of the Ka'aba, a pagan worship center which was then little more than a simple, unroofed stone enclosure housing several hundred pagan idols, including the black meteorite supposedly inhabited by Allah). Muhammad, the boy-toy husband of a wealthy woman named Khadija, often sought solitude in a nearby cave, and began seeing terrifying dreams when he went there. He was convinced he had been visited by a jinn (that is, a demon), and was, logically enough, contemplating suicide.

But Khadija smelled an opportunity: she would get the respect she craved by presenting her young husband to the community as a prophet—a seer of mystic visions. Ishaq (No. 155) states, "Khadija was the first to believe in Allah and His Apostle. By her Allah lightened the burden on His Prophet. Whenever he met with contradiction and charges of falsehood he was comforted by her when he went home. She strengthened him and belittled the opposition." Thus it was actually Muhammad's *wife* who created the religion of Islam, and the first to single out Allah as the go-to god. He himself wanted nothing to do with it—until he realized it could be the key to attaining power, sex, and money. As far as I can tell, Khadija was the first—and last—woman who ever got any respect from Muhammad, if only temporarily. In a very real sense, she is personally responsible for the enslavement of every woman in the Muslim world ever since.

The Hadith of Bukhari (Vol. 1, Book 1, No. 3) relates the inciting incident: "The commencement of divine inspiration to Allah's Messenger was in the form of dreams that came true like a bright light. The Prophet loved the seclusion of a cave in Hira. The angel came to him and asked him to read. The Prophet replied, 'I do not know how to read.' The Prophet added, 'Then the angel caught me forcefully and pressed me so hard that I could not bear it any more. He released me and asked me to read. I replied, "I do not know how to read." Thereupon he caught me again and pressed me till I could not bear it any more. He asked me to read but I replied, "I do not know how to read or what shall I read?" Thereupon he caught me for the third time and pressed me, "Read in the name of your Lord who has created man from a clot. Read! Your Lord is the most generous." Then the Apostle returned from that experience; the muscles between his neck and shoulders were trembling, and his heart beating severely. He went to Khadija and cried, 'Cover me! Cover me!' She did until his fear subsided. He said, 'What's wrong with me? I am afraid that something bad has happened to me.' Khadija replied, 'Never! By Allah, Allah will never disgrace you....'"

The Sunnah (Tabari, Vol. 1, No. 67) reports the event like this: "The Prophet said, 'I had been standing, but fell to my knees; and crawled away, my shoulders trembling. I went to Khadija and said, "Wrap me up!" When the terror had left me, he came to me and said, "Muhammad, you are the Messenger of Allah."" Muhammad said, 'I had been thinking of hurling myself down from a mountain crag, but he appeared to me as I was thinking about this and said, "I am Gabriel and you are the Messenger." Then he said, "Recite!" I said, "What shall I recite?" He took me and pressed me three times. I told Khadija, "I fear for my life." She said, "Rejoice, for Allah will never put you to shame."""

I have reported this in so much detail because it is important for us to understand that this is the *entire foundation* of Islam. There is but one prophet, Muhammad, through which "god's word" was supposedly transmitted. And how did Muhammad receive his revelations? Although they'd like you to believe that the "angel Gabriel" told him what to say (mind you, Muhammad couldn't *write* he was illiterate), it's just not true, according to their own scriptures. Muhammad got most of his material from his own mind—and not even from "hearing voices" like any normal schizophrenic, but from non-verbal ringing noises he heard in his head and later "interpreted."

His child-wife Aisha (who was six years old when they were married, when he was fifty) reported the following conversation (related by al-Bukhari: Vol. 1, Book 1, No. 2): "'Allah's Messenger! How is the Divine Inspiration revealed to you?' He replied, 'Sometimes it is like the ringing of a bell. This form of inspiration is the hardest of all and then this state passes off after I have grasped what is inspired. Sometimes the angel comes in the form of a man and talks to me and I grasp whatever he says.'" An angel? In Vol. 6, Bukhari reports Aisha's assertion that "Whoever tells you that Muhammad saw his Lord is a liar...and the Prophet only saw Gabriel twice." This, of course, begs the question: if the Hadith says that Muhammad saw Gabriel on only two occasions, how reliable (cough, choke) was the "bell" method, apparently used to transmit the remaining 112 surahs? The Qur'an is supposedly the very word of god (i.e., Allah), but its provenance is sketchy at best.

And then there's the little matter of inconsistency (or outright selfcontradiction). The Qur'an has some "let's play nice verses" and some "go kill all the infidels" verses. And it explains that Allah sometimes changed his mind, but when he abrogated a verse, he replaced it with a "better one." (Qur'an 2:106) That means that the *later* surahs (chronologically, not numerically) are the final word. It's a big job, but it *is* possible (by comparing events portrayed in the Hadith and Sunnah to the corresponding situations in the Qur'an) to determine which surahs came first, and which came last. Unfortunately for the world, Allah apparently got grumpier and more murderous as Muhammad grew older, and especially after Kadijah died. In the end, all of the "let's-get-along-with-the-People-of-the-Book" verses were done away with, replaced with jihad, hatred, greed, lust, and genocide—along with threats of hell fire for any Muslim reluctant to participate in the mayhem.

Islam claims to be monotheistic, but the identity of its deity tended to shift as Muhammad got more comfortable in his role as a "prophet." At first, his god was a generic "Lord," and later he was identified by name: ar-Rahman (a bloodthirsty pagan deity worshiped not in Mecca, but far to the south in Yemen—a god whose name, ironically enough, means "the Merciful"). It wasn't until Kadijah was dead and Muhammad had been run out of Mecca as a public nuisance, finding shelter among the gullible Arabs in the city of Yathrib (now known as Medina), that he began openly calling upon the name of Allah—associated, you'll recall, with one of the three hundred rock idols kept in the Ka'aba at Mecca. Muhammad scrupulously avoided calling on "local" gods (who could presumably be "consulted" by others) until he had gained political dominance.

Political Islam began in Yathrib (the town to which Muhammad fled in 622 an event called the *hijra*, the year from which the Muslim calendar is dated), and this is where his irrational hatred for Jews developed. Three of the five tribes in Yathrib were Jewish, and Muhammad learned just enough to be dangerous about Jewish lore from their recountings from the Talmud—which is based (all too loosely) on the Tanakh. He learned enough about Biblical "heroes" like Adam, Noah, Abraham, and Lot to build their stories into his own "scriptural narrative." The lesson was always the same: obey the "prophet" or suffer the wrath of God. Muhammad liked the Jewish "Messiah" concept so well, he decided *he* must be the One, at which point the Jews of Yathrib began ridiculing him just as the pagans of Mecca had. When the Meccans had exiled Muhammad in 622, he had taken a handful of followers with him, finding shelter and charity in Yathrib, now called Medina, about 200 miles north of Mecca. Then as now, the Muslims didn't assimilate into their new surroundings, but lived off "welfare" (such as it was) for as long as they could. Eventually they became professional criminals, raiding passing caravans. When that ploy didn't yield enough booty for them, they turned on their hosts—the three Jewish tribes of Yathrib, the Beni Qainuqa, the Beni al Nadheer, and the Beni Quraidha. One by one, they robbed them of everything they owned, exiled or murdered their men, and took (or sold) their wives and children as slaves. The profits weren't used to improve their lot in life, however. They were used to purchase weapons to make them more formidable warriors in the *next* battle. Muhammad, as the exalted "prophet," took his 20% cut of the profits off the top, whether he personally participated in the bloodshed or not.

Islam had found its "place" in the world: as long as there were victims to exploit and enslave, the "religion" spread. And spread it did for the next century—westward across Africa as far as the Pacific Ocean, and eastward across South Asia—as long as there was anybody left who remembered what the Qur'an had commanded Muslims to do: fight unrelenting holy war against the infidels.

### A Peaceful Religion?

So why in the world do we keep hearing from a gullible (or treasonous) press that "Islam is a peaceful religion"? If Islam-dominated OPEC didn't control 40% of the world's oil supply, would anybody believe it for a nanosecond? For a decade after 9/11, it was still hard to find anybody who was willing to admit the truth—that *Islam itself* is evil. Now, it appears, some folks are finally beginning to wake up to the truth, but the PC gene is still dominant in the western world—and it makes whole populations incapable of rational thought.

It all goes back to how one defines "peace." To the average guy, it means "the normal, non-warring condition of a nation, group of nations, or the world.... a state of mutual harmony between people or groups, especially in personal relations.... freedom from civil commotion and violence of a community; public order and security.... freedom of the mind from annoyance, distraction, anxiety, an obsession, etc.; tranquility; serenity."—*Dictionary.com*. The Hebrew concept of *shalom* broadens the concept: "completeness, wholeness, health, peace, welfare, safety soundness, tranquility, prosperity, perfectness, fullness, rest, harmony, and the absence of agitation or discord."—*Strong's*.

But in Islam, it means something entirely removed from these sanguine ideas: "peace" to them is the state of affairs that exists when the entire world has been forced to submit to "Allah and his messenger." The problem is perpetuated by the structure of Islam itself. Islam has no plausible method for the atonement of sin, suggesting instead that Allah might be bribed by committing acts of unspeakable viciousness against infidels (something called *Jihad*) to ensure one's entrance into "paradise." There is no mechanism in Islam for removing sin other than the ludicrous claim that "Allah is merciful." It's the height of irony: Muslims are commanded by their supposedly "merciful" god to *show no mercy*.

That may be an unpopular thing to say, given the Muslims' incessant claim that "Islam is a peaceful religion" (something we now know to be nothing more than a semantic prevarication). So let us consult with Islam's "holiest" scriptures: the Qur'an (supposedly the very words of Allah), the Hadith (that is, the "Sayings of the Prophet") recorded by al-Bukhari, and the Sunnah (or "Example") collected by the likes of ibn-Ishaq, ibn-Hisham, and al-Tabari. They consistently reveal that Islam *requires* warfare, not peace, against all who would not submit to "Allah and his Apostle." I have chosen these few examples almost at random. There are literally hundreds of suitable "proof texts" available in the Muslim scriptures:

Ishaq (No. 326): "If they ask you for peace on the basis of Islam (submission), make peace on that basis." According to Islam, unless and until we *all* believe (or at least pretend) that "there is no god except Allah, and Muhammad is his messenger," there will be no peace on earth.

Tabari (Vol. 8, No.104): "Peace to whoever follows the right guidance! To proceed; Submit yourself, and you shall be safe." In the long run, either Islam must be eradicated from the earth, or everybody else must be: there is no middle ground.

In the afterlife, the *only* rewards in Islam are promised exclusively to those who fight, while making peace will earn you the hottest fires of hell...

Bukhari (Vol. 4, Book 52, No. 48): "The people said, 'Allah's Apostle! Acquaint the people with the good news.' He said, 'Paradise has one hundred grades which Allah has reserved for the Mujahidin [i.e., jihadists] who fight in His Cause.'" Paradise is reserved for the fighters, and apparently, the most murderous among them get the best rewards.

Qur'an 9:111: "Allah has purchased the believers, their lives and their goods. For them is Paradise. They fight in Allah's Cause, and they slay and are slain; they kill and are killed." Life is bad. Death is good. Peace is unthinkable. And it appears that Allah would prefer *both* believers and infidels to die.

Tabari (Vol. 2, No. 55): "Allah's Messenger went out to his men and incited them to fight. He promised, 'Every man may keep all the booty he takes.' Then Muhammad said, 'By Allah, if any man fights today and is killed fighting aggressively, going forward and not retreating, Allah will cause him to enter Paradise.'" Living peaceably is not an option. One must fight aggressively, never letting up. The motivation is to steal everything you can, and if you get killed for your trouble, Allah promises to give you scores of virgins to abuse and rivers of wine to keep you inebriated—things that were forbidden in life. The more greedy, lust-driven and lethal you are, the better Allah likes it.

Bukhari (Vol. 4, Book 52, No. 80): "Muhammad said, 'Allah welcomes two men with a smile; one of whom kills the other and both of them enter Paradise. One fights in Allah's Cause and gets killed. Later on Allah forgives the killer who also get martyred in Allah's Cause." As long as people are killing each other or dying in the attempt, Allah is happy. (Or he would be, if he were real.)

Qur'an 8:15: "Believers, when you meet unbelieving infidels in battle while you are marching for war, never turn your backs to them. If any turns his back on such a day, unless it be in a stratagem of war, a maneuver to rally his side, he draws on himself the wrath of Allah, and his abode is Hell, an evil refuge!" Retreating or retiring from the battle is forbidden. One must keep fighting until he is dead, for Allah wills it. I don't think your god likes you very much, guys.

Forgive me for being blunt, but only an idiot or a liar would call this "a religion of peace." Or even *sane*. Muslims must take the word of one man, Muhammad, as truth. Islam requires one's willingness to die for the cause, even though nothing he said (whether historical or prophetic, scientific or theological) can be verified with empirical evidence. Remember: a belief system is defined not by what the majority of its adherents want to do, but by what its scriptures declare. Islam's agenda—armed conquest—is the absolute antithesis of the Judeo-Christian requirement of love.

There are over a billion and a half Muslims living in the world today. Many them would prefer to live quietly in their cultural cocoons, peaceful and comfortable in their mindless religious traditions—observing the five "pillars" of Islam (the *shahada* (confession of faith), *salat* (prayer), *zakat* (almsgiving), *sawm* (fasting, especially during the month of Ramadan), and *hajj* (the pilgrimage to Mecca). To them, this *is* Islam. But more and more Muslims are waking up to the fact that *it isn't*, not really. Rather, Sharia law—the legal code derived from the sayings and example of Muhammad (though it has little basis in the Qur'an)—demands a lifestyle that forbids peace and precipitates unending conflict and bitterness. It begins at home, with a war on women in which anyone without a Y chromosome is nothing but property, something a man may beat, rape, and even kill if she displeases him. It *ends* out in the world, where jihad (the Islamic war of conquest) is waged against any and all who will not submit to Islam.

Muslim apologists would have us believe that jihad is nothing but "spiritual struggle," but allow me to reprise the way it is defined by the Fahd Foundation's official English translation of the Qur'an. It's a bit more candid: "Jihad is holy *fighting* in Allah's Cause with full force of numbers and weaponry. It is given the utmost importance in Islam and is one of its pillars. By Jihad, Islam is established, Allah's Word is made superior (which means only Allah has the right to be

worshiped), and Islam is propagated. By abandoning Jihad, Islam is destroyed and Muslims fall into an inferior position; their honor is lost, their lands are stolen, their rule and authority vanish. Jihad is an obligatory duty in Islam on every Muslim. He who tries to escape from this duty, dies with one of the qualities of a hypocrite." (*Noble Qur'an*, margin note on surah 2:190.) As you can see, real jihad has nothing to do with religious observance or soul searching, and everything to do with the political and military ascendancy of Islam—that which Muhammad coveted with every fiber of his being. And *this* "pillar," unlike the other five, *is* included—no fewer than 164 times—in the Qur'an itself, supposedly the very word of Allah.

So if and when a Muslim "wakes up" to what his religion actually requires, he becomes a nasty, belligerent person, ready to kill or be killed for "the cause." It "helps," of course, to be assured by one's imam that the goal is booty in this world if you are successful in jihad, or unending carnal lust in paradise if you manage to get yourself killed. For the true believer, there is no apparent downside: if the imams are right, even though you have nothing to live for, you've still got something to *die* for. The bottom line, then, is that the closer a Muslim adheres to the teachings of his religion, the worse a human being he will be: frustrated, miserable, unfulfilled, hateful, selfish, and potentially lethal to anyone he meets.

The logical question we must ask is, how can Muslims be so out of touch with reality? I can understand why they don't *leave* Islam: to do so can bring a death sentence down upon one's head. (What kind of religion can only keep its faithful by threatening to kill them if they leave?) But how can they continue to insist that "Islam is a religion of peace," when it is in fact precisely the opposite—a manifesto demanding war against all men until Islam is universal and Allah is all-powerful? Tim Burton, writing for *BrennerBrief.com*, explains: "If a Muslim cannot achieve a permissible goal (such as promoting Islam in the eyes of non-Muslims, or preventing its denigration in the eyes of non-Muslims) by telling the truth, then he is actually *obliged*—not just permitted, but *divinely commanded*—to lie in order to achieve that goal. This is in direct contrast to the moral and ethical values of our Judeo-Christian civilization, where lying under any circumstances is considered to be a sin. People do lie, of course, for all sorts of reasons, but they know that they are committing a sin by doing so, and there is never any circumstance under which a lie may be given divine sanction."

*IslamExposed.org* describes the intricacies of purposeful Islamic deception: "Islam is an inherently subversive ideology. It even uses ignorant Muslims to give the *Kafir* (a derogatory term for non-believers) the illusion of assimilation. Islam is Jihad, as Muhammad stated that it is the moral duty of devout Muslims to engage in Jihad of the sword and the pen (war and war propaganda) (Bukhari, Vol. 1, Book 2, No. 26). In the words of Mohammad, 'War is deceit.' (Bukhari, Vol. 4, Book 52, No. 269)."

Islamic deceit is a highly developed art form, as revealed by the extensive vocabulary employed to describe its many facets:

*"Taqiyya* (Shia) or *Muda'rat* (Sunni): tactical deceit for the purposes of spreading Islam.

"Kitman: deceit by omission.

"Tawriya: deceit by ambiguity.

*"Taysir*: deceit through facilitation (not having to observe all the tenets of Sharia).

"Darura: deceit through necessity (to engage in something 'Haram' or forbidden).

*"Muruna*: the temporary suspension of Sharia in order that Muslim immigrants appear 'moderate.' So through the principle of *Hijra* (Muslim immigration), the early Muslims are a 'red herring' or a Trojan Horse. The *Kafir* (or *Kuffar*) community gets the false sense that the early immigrants are not a threat, at least until the Muslim community has gained strength."

Other important Islamic terms shed light on how Muslims are expected to infiltrate infidel society through deceit and deception:

*"Al-Wara' Wal-Bara*: This requires Muslims to help Muslims against non-Muslims, which could include sheltering terrorists, etc., and to shun, oppose, hate, and make jihad—including war—on non-Muslims.

*"Hudna*: a temporary truce (often portrayed as 'peace' to the *kafir*), which the Muslims can break at any time when strategically advantageous. It is usually for the purposes of rearming and regrouping.

*"Hijra*: Muslim immigration in order to peacefully populate and gain strength in a *Kafir* country. This can be used in combination with *Muruna*." (This of course was the tactic Muhammad himself used in Yathrib/Medina after having been run out of Mecca.)

"Conditional Behavior: Following Mohammad's example (i.e., Mecca vs. Medina), the principle of: when weak, preach peace; when strong, wage war.

"Dualist logic: When the Qur'an contains conflicting statements, they are still both true since they are the words of Allah. Under Western logic, if there are two conflicting statements (e.g., 'There is no compulsion in religion' and 'Whoever changed his Islamic religion, then kill him'), only one can be true and the other is false. This dualist logic allows the faithful to use whichever verse will propel the spread Islam (usually the peaceful verse repeated in English for the *kafir* and the violent verse repeated in Arabic to the faithful).

"Abrogation ('*Naskh*'): When there are two conflicting statements, the 'truer,' authoritative statement is the later, more violent one, which takes precedence over the earlier peaceful statement in regards to the course of action a devout Muslim should take to further the spread of Islam." As I have noted, if compared against the events recorded in the Hadith and Sunnah, the Qur'an's chronological order can be worked out, proving that the more recent "nasty" verses take precedence over the older "nice" ones.

"Alternate Definitions: The Islamic definitions of the words 'peace,' 'tolerance,' 'freedom,' and 'equality' are different than the West's definitions. The Islamic definitions are compatible with Jihad and Islamic intolerance.

*"Haram* vs. *Halal*: Even the actions that Muslims claim are against Sharia Law (i.e., *Haram* or forbidden) can be acceptable (i.e., *Halal* or permissible) in order to spread Islam. For example, under Sharia Law, homosexuality is Haram, and homosexuals are to be killed. Yet, an Imam issued a Fatwa (a religious legal pronouncement and decree) allowing for sodomy between two males in order for the suicide bomber's anus to be stretched to accommodate explosives. So what is *Halal* and what is *Haram* is based on the intention (*'Niyya'*) of the actor. In the West we call this 'the ends justifies the means.'"

The really terrifying epiphany for me is that there seems to be very little difference between the deceit of Islam and that of liberal American politics.

### Creeping Sharia

Considering the purposeful campaign of deception that the Islamic scriptures demand in order to advance this insidious "religion," it shouldn't be terribly surprising to discover how much progress they've made in spreading the Religion of Death into non-Muslim societies. And yet, I (for one) find myself utterly flabbergasted at the inroads they've made. I mean, their lies are so absurdly transparent, one would have to be utterly naïve, stupid, or morally adrift to give them any credence at all. And we're not *all* that naïve or stupid.

So I think "door number three" here is the key to creeping Sharia: the world has largely left behind whatever grounding it once had in the Word of Yahweh. As Paul noted, "although they knew God, they did not glorify Him as God, nor were thankful, but became futile in their thoughts, and their foolish hearts were darkened. Professing to be wise, they became fools, and changed the glory of the incorruptible God into an image made like corruptible man." (Romans 1:21-23) It's the same trap the atheistic secular humanists fell into, but this time, the "corruptible man" in question is Muhammad—the very personification of corruption. Is it just my imagination, or does it seem like the only people left who are totally immune to

the deceptions of Islam are evangelical, fundamentalist Christians—and perhaps the occasional patriot or political conservative (though these groups can overlap to a great extent, especially in America).

But for some inexplicable reason, everybody else seems to be falling all over themselves trying to find a reason to justify or excuse Islam, a way to compromise with it, or a strategy for living peaceably with it. We Americans decry acts of terrorism in foreign lands—*all of which* are perpetrated by Muslims—only to turn around and allow (nay, *encourage*) the immigration of thousands upon thousands of them onto our shores, numbly chanting the fallacious mantra, "Islam is a peaceful religion" over and over. And then we're *shocked* when somebody we've welcomed with open arms in the name of political correctness detonates a bomb in a public place or guns down a group of innocent people in the name of jihad. It's insane.

Mind you, I have nothing against immigration *per se*: the "melting pot" is what ideally keeps any nation (though obviously, I'm thinking primarily about America) vibrant and growing. But with Islam, all too often, things don't "melt" at all—Muslims don't integrate, don't assimilate, and don't become part of the society to which they've come. In both Europe and North America, there are now "no-go zones," hundreds of them, in which Sharia law takes precedence over the law of the land. Police don't enter these areas, or attempt to enforce the law: they have become like foreign enclaves.

Our 26<sup>th</sup> President had some brilliant observations on the subject—which now, over a hundred years later, have become a scathing indictment of Islamic immigration without assimilation: "In the first place, we should insist that if the immigrant who comes here in good faith becomes an American and assimilates himself to us, he shall be treated on an exact equality with everyone else, for it is an outrage to discriminate against any such man because of creed, or birthplace, or origin. But this is predicated upon the person's becoming in every facet an American, and nothing but an American.... There can be no divided allegiance here. Any man who says he is an American, but something else also, isn't an American at all. We have room for but one flag, the American flag.... We have room for but one language here, and that is the English language... and we have room for but one sole loyalty and that is a loyalty to the American people."-Theodore Roosevelt, 1907. I, personally, would take the whole process back a notch, and observe that America was founded by Christians on Christian principles—*Biblical* principles—and anyone who comes here from a foreign land should be prepared to respect that fact. But apparently, that's asking too much.

Sharia law—the Muslim-enclave replacement for Judeo-Christian-based English Common Law—is based not on the inalienable rights of humanity, but on the wishful thinking of Muhammad. It begins with the inhumane treatment of women. Nonie Darwish (born into a Muslim family in Egypt), in a piece sarcastically entitled "Joys of Muslim Women," writes, "In the Muslim faith a Muslim man can marry a child as young as one year old and have sexual intimacy with this child, consummating the marriage by nine. The dowry is given to the family in exchange for the woman (who becomes his slave) and for the purchase of the private parts of the woman, to use her as a toy.

"Even though a woman is abused she cannot obtain a divorce. To prove rape, the woman must have four male witnesses. Often after a woman has been raped, she is returned to her family and the family must return the dowry. The family has the right to execute her (an honor killing) to restore the honor of the family. A husband can beat his wives 'at will' and he does not have to say why he has beaten her. The husband is permitted to have four wives, and a temporary wife for an hour (a prostitute) at his discretion.

"The Sharia Muslim law controls the private as well as the public life of the woman. In the Western World (Canada, Australia, United States and Britain) Muslim men are starting to demand Shariah Law so the wife cannot obtain a divorce and he can have full and complete control of her. It is amazing and alarming how many of our sisters and daughters attending American, Canadian, Universities and British Universities are now marrying Muslim men and submitting themselves and their children unsuspectingly to the Shariah law....

"While Westerners tend to think that all religions encourage some form of the golden rule, Sharia teaches two systems of ethics—one for Muslims and another for non-Muslims. Building on tribal practices of the seventh century, Sharia encourages the side of humanity that wants to take from and subjugate others. While Westerners tend to think in terms of religious people developing a personal understanding of and relationship with God, Shariah advocates executing people who ask difficult questions that could be interpreted as criticism. It's hard to imagine that in this day and age, Islamic scholars agree that those who criticize Islam or choose to stop being Muslim should be executed. Sadly, while talk of an Islamic reformation is common and even assumed by many in the West, such murmurings in the Middle East are silenced through intimidation."

Those familiar with the Islamic scriptures recognize this tactic immediately. I call it: "WWMD" (What Would Muhammad Do?). The Hadith makes no effort to hide the prophet's paranoia and narcissism, boasting of the summary execution of his critics while their children looked on. "Reform" in Islam is nothing more than a retreat to the shelter of conscience—what Muhammad called "hypocrisy," attempting to practice the Muslim religion's rites and rituals without violating one's inner moral compass by engaging in jihad.

## Paradise and Hell-Fire

What about the Islamic concept of heaven and hell? If you've been paying attention for the past couple of decades, you will have noticed that Islam marches to the beat of an entirely different drummer. Their goals, motivations, and concepts of right and wrong are completely antithetical to those of Christians and Jews, Hindus and Buddhists, and even atheists and agnostics. We've established the Qur'an-based principle that the *only* thing to which their god responds positively (if we can take his word for it) is jihad—fighting in the cause of Allah and his prophet until the whole world either submits or succumbs. (Yes, the "five pillars" of Islam are commanded of Muslims, but rewards in the afterlife are linked *exclusively* to jihad.)

So we know *why* serious Muslims are so bloodthirsty and brutal: jihad is mandatory. But we will never fully understand what motivates Muslims to violate their own consciences until we examine what their "scriptures" teach concerning death and its aftermath.

First, let us determine who is destined for which fate. Al-Bukhari (Vol. 4, Book 51, No. 72) wrote, "Our Prophet told us about the message of our Lord: 'Whoever amongst us is killed will go to Paradise.' Umar asked the Prophet, 'Is it true that our men who are killed will go to Paradise and the Pagans will go to the Hell Fire?' The Prophet said, 'Yes.'" Pagans (polytheists) won't be the only ones consigned to hell, however: Qur'an 4:140 notes, "Indeed, Allah will collect the Hypocrites and Infidels together and put them all in Hell." As we've seen, a "hypocrite" in Islamic parlance is a nominal Muslim who is reluctant to fight in a war of jihad or support such violence with his financial means—in other words, a "peaceful Muslim." And an "infidel" is anyone who does not submit to Allah and his messenger.

Oh, and ladies? There is no hope for you at all in Islam—alive *or* dead. The Hadith (Bukhari Vol. 1, Book 22, No. 28) says, "The Prophet said: 'I was shown the Hell Fire and the majority of its dwellers were women who are disbelievers or ungrateful.' When asked what they were ungrateful for, the Prophet answered, 'All the favors done for them by their husbands.'" You know, like beating them, raping them, mutilating them, and treating them like cattle. From the Sunnah (Imam Muslim, Book 1, No. 142): "'O womenfolk, you should ask for forgiveness, for I saw you in bulk amongst the dwellers of Hell.' A wise lady said: Why is it, Allah's Apostle, that women comprise the bulk of the inhabitants of Hell? The Prophet observed: 'You curse too much and are ungrateful to your spouses.'" Kadijah, something tells me you created a monster when you tried to rein in your boy-toy. "'You lack common sense, fail in religion and rob the wisdom of the wise.' Upon this the woman remarked: 'What is wrong with our common sense?' The Prophet replied, 'Your lack of common sense can be

determined from the fact that the evidence of two women is equal to one man. That is a proof." Oh, okay. Makes perfect sense when you put it that way. Not.

*Only* male jihad fighters, then, can enter the Muslim Paradise. The jury is still out on whether they actually have to get killed in battle, or merely have to make everybody else's lives miserable. Let us examine what the Islamic scriptures have to say about this side of the afterlife:

Qur'an (56:13): "A multitude... (will be) on couch-like thrones woven with gold and precious stones. Reclining, facing each other. Round about them will serve boys of perpetual freshness, of never ending bloom... [Is it just me, or do you too detect an undercurrent of Muslim lust for boys as well as girls here?] with goblets, jugs, and cups filled with sparkling wine. No aching of the head will they receive, nor suffer any madness, nor exhaustion." Gee, Muhammad, what's the point of getting drunk in paradise if you can't do stupid things you'll regret in the morning, or wake up with a hangover? "And with fruits, any that they may select; and the flesh of fowls, any they may desire. And (there will be) *Hur* (fair females) with big eyes, lovely and pure, beautiful ones, like unto hidden pearls, well-guarded in their shells. A reward for the deeds."

Qur'an (56:33): "Unending, and unforbidden, exalted beds, and maidens incomparable. We have formed them in a distinctive fashion and made them virgins, loving companions matched in age [another poke at Kadijah?], for the sake of those of the right hand." That "right hand" reference points to something that destroys the "Paradise for jihad fighters" theory: Allah is said to have *predestined* everyone's eternal fate by rubbing Adam's back. Those few who came from his right hand would go to Paradise, while the vast majority, the fruit of his left hand, were predestined to hell fire, no matter what they did in life.

Hmmm. Does this imply that Allah is left-handed? Somebody didn't think this through.

Note that free will has no place in Islam. Qur'an (33:36): "It is not fitting for a Muslim man or woman to have any choice in their affairs when a matter has been decided for them by Allah and His Messenger. They have no option."

Qur'an (37:40): "Fruits, Delights; they will be honored in the Gardens of Pleasure, on thrones facing one another. Round them will be passed a cup of pure white wine, delicious to the drinkers, free from *ghoul* (hurt), nor shall you be made mad or exhausted thereby. And with them will be *Qasirat-at-Tarf* (virgin females), restraining their glances (desiring none but you), with big, beautiful eyes. As if they were (sheltered) eggs, preserved." Booze and babes—the stuff Muhammad couldn't get enough of. Are you *sure* this is the word of Allah? For a "god," he sure seems to be attuned to carnal male lusts.

Qur'an (88:12): "Therein will be a bubbling spring, raised throne-like couches, drinking cups ready placed, cushions set in rows, and rich silken carpets all spread out." The Islamic paradise is described as a place of worldly luxuries, not heavenly (i.e., spiritual) delights, where the inhabitants live like pampered sultans, and Allah is nowhere in evidence.

Bukhari (Vol. 4, Book 55, No. 544): "Allah's Apostle said, 'The first group who will enter Paradise will be glittering like the moon and those who will follow will glitter like the most brilliant star. They will not urinate, relieve nature, spit, or have any nasal secretions. Their combs will be gold and their sweat will smell like musk. Their companions will be *houris* [virgins]. All of them will look alike and will be sixty cubits (90 feet) tall." Tell me: how does one keep a 90-foot-tall virgin happy?

Qur'an (78:31): "Verily for those who follow Us [presumably, Allah *and* Muhammad], there will be a fulfillment of your desires: enclosed Gardens, grapevines, voluptuous full-breasted maidens of equal age, and a cup full to the brim of wine. There they never hear vain discourse nor lying—a gift in payment—a reward from your Lord." What, did you think Allah would procure scrawny, flat-chested virgins for his heroic warriors? Not a chance.

We must understand that the things Muhammad (excuse me, *Allah*) promised his "insurgents" in death were the very things that he forbade in life. Frustration was part of the formula. Under Muhammad's rule, if the Muslims wanted to satiate their lusts (or merely enjoy a pleasant, comfortable life), they'd have to die for the cause. Bukhari (Vol. 7, Book 69, No. 494) explains: "I heard the Prophet saying, 'From among my followers there will be some who will consider illegal sexual intercourse, the wearing of silk, the drinking of alcoholic drinks and the use of musical instruments, to be lawful. Allah will destroy them during the night and will let mountains fall on them. He will transform the rest into monkeys and pigs and they will remain so till the Day of Doom.'" In other words, if you find any pleasure in this life, you can look forward to spending eternity in hell. That goes a long way toward explaining the jihadist's misery, thwarted desire, and pent-up resentment toward his fellow man.

I have speculated on how many Christians might participate in the rapture, as living saints caught up out of the world, that is. Innumerable multitudes of post-rapture neo-believers will "live and reign with Christ for a thousand years" as well—whether as living mortals or resurrected saints. Considering the fact that "Whosoever will may come" (Revelation 22:17), and that God wishes no one to perish, but for all to come to repentance (II Peter 3:9), the door to salvation is wide open (though comparatively few among the earth's billions of inhabitants will choose the "narrow gate" that leads to it). Even so, I expect the numbers of

living saved taken in the rapture worldwide to be in the "nine-figure" range hundreds of millions. And the total capacity of "heaven" is unlimited.

How does that compare to the Islamic scriptures' description of the capacity of paradise? Bukhari (Vol. 8, Book 76, No. 550) reports: "I heard Allah's Apostle saying, 'From my followers there will be a crowd of 70,000 in number who will enter Paradise." My guess is that there have been perhaps three billion Muslims throughout history, over half of whom are alive today. That means that according to Muhammad himself, one's chances of entering paradise are only 1 in 43,000— and *that's if you're a Muslim!* Everyone else will go to hell. If I were a Muslim, I'd rethink my strategy (and my god), based on that statistic alone.

But perhaps you're thinking, "Maybe the Islamic hell isn't so bad. Maybe it's like John Lennon's pipe dream, 'No hell below us, above us only sky' (which is roughly tantamount to Hindu *Heaven*, if you think about it). No, sorry. The Islamic scriptures' descriptions of "Hell Fire" are more vivid, nasty, and numerous than you might imagine. They make Dante's Inferno look like a mildly stressful Monday morning. It would appear that Muhammad needed something *really scary* to motivate the troops to go out and fight for him. As we saw with Islam's descriptions of Paradise, these descriptions (and my list could have gone on for dozens of pages) are decidedly carnal in nature—physical torments designed to intimidate people living in physical bodies. If you really believed these things, you'd do *anything* to avoid being sent there:

Qur'an 37:63: "For We have truly made it as a trial to torment the disbelievers. *Zaqqum* is a horrible thorn tree that grows in Hell. The shoots of its fruit-stalks are like the heads of devils. Truly they [non-believers] will eat it and fill their bellies with it. On top of that they will be given a mixture made of boiling water to drink especially prepared. Then they shall be returned to the Blazing Fire." And in hell, Allah himself is the caterer. He doesn't go anywhere near paradise. (Perhaps that's why they call it paradise.)

Bukhari (Vol. 4, Book 54, No. 487): "The Prophet said, 'The Hell Fire is 69 times hotter than ordinary worldly fires." Ordinary fire is apparently not a scary enough motivator. By the way, that would make hell fire run about 125,000° F. The surface of the sun is "only" about 10,000°F.

Qur'an 74:26: "Soon will I fling them into the burning Hell Fire! And what will explain what Hell Fire is? It permits nothing to endure, and nothing does it spare! It darkens and changes the color of man, burning the skin! It shrivels and scorches men." Is it my imagination, or is Muhammad projecting his own worst nightmares onto "Allah's" description of hell?

Qur'an 67:7: "We have prepared the doom of Hell and the penalty of torment in the most intense Blazing Fire. For those who reject their Lord is the punishment of Hell: Evil, it is such a wretched destination. When they are flung therein, they will hear the terrible drawing in of their breath and loud moaning even as the flame blazes forth, roaring with rage as it boils up, bursting with fury." There's nothing "spiritual" about this. All of the Qur'an's portrayals of hell are calculated to be terrifying to mortal man in living, physical bodies.

Qur'an 88:1, 6: "Has the narration reached you of the overwhelming calamity? Some faces (all disbelievers, Jews and Christians) that Day, will be humiliated, downcast, scorched by the burning fire, while they are made to drink from a boiling hot spring.... They shall have no food but a poisonous plant with bitter thorns, which will neither nourish nor satisfy hunger." According to the Hadith, Muhammad was abandoned and abused as a child. Is it possible that these depictions of "hell" are extrapolations or exaggerations of the deprivations he himself suffered? Just a theory.

As I noted, only jihad fighters are qualified for paradise (and precious few of them, as it turns out). Qur'an 4:97: "Verily, when angels take the souls of those who die wronging themselves (by staying home from the battle), they say: 'In what plight or engagement were you?' They reply: 'Weak on the earth.' Such men will find their abode in Hell, an evil resort!" Muhammad hated Jews and envied Christians, but he positively *loathed* "nominal" Muslims who wouldn't lift a finger to go out and steal some booty or kidnap a woman for him.

Qur'an 9:67-68: "The Hypocrites enjoin what is forbidden, and forbid what Islam commands. They withhold their hands (from spending in Allah's Cause [i.e., Jihad]). They have forgotten Allah so He has forgotten them. Verily the Hypocrites are oblivious, rebellious and perverse. Allah has promised the Hypocrites, both men and women, and the disbelievers the Fire of Hell for their abode: Therein shall they dwell. It will suffice them. On them is the curse of Allah, and an enduring punishment, a lasting torment." The Bible teaches that Yahweh is love; the Qur'an makes a pretty good case that Allah is hatred personified.

Qur'an 70:10, 12: "The *Mujrim* (disbeliever) desires to free himself from the Punishment by sacrificing his children as a ransom to save himself from the torment.... He would sacrifice his wife and his brother, and his kin who sheltered him, and all that is on earth to deliver himself from the Doom. By no means! For them it is the Fire of Hell! Plucking apart his body right to the skull! Taking away the head skin. Eager to roast; dragged by the head, hell shall claim all who flee." *Sacrificing his children?* Is this not precisely what Muslim parents are doing when they encourage their offspring to become suicide bombers? Is this not what Hamas Katyusha teams do when they launch their rockets toward Israel from Gaza using women and children as human shields? This is just another thinly

disguised exercise in projecting one's faults upon his enemy—accusing him of what you yourself are doing.

One revealing aspect about all of this is that Allah seems impotent to defend his own interests. Rather, he feels he must threaten his captives (excuse me *followers*) with eternal torment in order to induce them to violate and suppress the consciences crying out within them, begging them to seek peace and love mercy. Allah is apparently incapable of doing any of his own "wet-work." (Not coincidentally, this is the same way the Bible depicts Satan.) Where the Judeo-Christian God insists, **"Vengeance is Mine, I will repay,' says Yahweh**," (Romans 12:19; Deuteronomy 32:35) and then patiently gives men their entire lifetimes to repent, Allah wants the disbelievers and Muslim hypocrites to be slain by his jihadists *now*—and not only killed, but robbed, and their dependents enslaved, imprisoned, and/or raped.

And where is the booty to go? To his sole "prophet," who died in 632 A.D. It's interesting that no subsequent scripture was ever revealed saying who was supposed to get rich after Muhammad was toes up (prophecies of the coming Mahdi not withstanding). Allah apparently never gave a second thought as to who was to lead Islam or profit by it after the prophet's death—an "oversight" which divides dar al-Islam between Sunnis and Shiites to this day. It's remarkable, considering how often Allah's story changed during Muhammad's lifetime, that he would say (in Qur'an 33:36), "No Muslim has any choice after Allah and His Apostle have decided a matter." I guess Allah sort of lost interest in dispensing divine revelation after Muhammad croaked at the age of 62.

I'm being silly, of course. "Allah" was just a black rock that Muhammad recruited to deceive gullible Arabs into doing his bidding and enabling his lusts. I can't believe it *ever* worked—but *especially* after he was dead. On the other hand, the whole scam borders on brilliance (in a twisted sort of way): Muhammad gave fallen, corrupt men license to loot, plunder, rape, and murder—to give their sinful natures free rein—all with "divine" blessing and encouragement.

Along with his well-documented lust and greed, the Islamic scriptures reveal that Muhammad was extremely thin-skinned, ready to lash out at any real or perceived slight, insult, or offense. He was by all accounts (mind you, the only accounts we have are *Islamic* scriptural sources) one of the most narcissistic, self-absorbed men who ever lived. The words the prophet put in Allah's mouth bear this out. Qur'an 33:56: "Allah and His angels shower blessings on the Prophet. So believers, send your blessings on him, and salute him with all respect—a worthy salutation. Those who annoy Allah and His Messenger and speak evil things of them—Allah has cursed them and prepared a humiliating torment." It's amazing the way Allah and Muhammad always seem to be speaking in the same voice, like a dummy controlling his ventriloquist. Qur'an 33:57: "Those who speak

negatively of Allah and His Apostle shall be cursed." How convenient. Qur'an 108:3: "For he who insults you (Muhammad) will be cut off." To this day, Islamists get incensed when people scoff at the ridicule-worthy antics perpetrated in the name of Allah and his apostle. The road apples don't fall far from the camel, I guess.

#### Islamic Boys' Clubs

One of my pet peeves is the mainstream media's annoying habit of blaming all Islamic terrorism on al-Qaeda, as if nobody is a *real* terrorist if they aren't in some way affiliated with this group, founded by Osama Bin Laden in the late 1980s. Since 9/11, we've all become aware of a few likeminded organizations, like the Taliban, Hezbollah, Hamas, and of course the Muslim Brotherhood (the granddaddy of them all), but the news media have been consistently reticent to report the obvious—that these terrorist boys' clubs are united and motivated by only one thing: *Islam*—the Religion of Death.

For the longest time, in fact, the news media insisted on describing these groups as "insurgents," "rebels," "belligerents," "enemy combatants," "militants," or my personal favorite, "freedom fighters." When it finally became impossible to hide the fact that Islam had something to do with their terrorism, it was assumed that these fanatics were a tiny minority who had somehow "twisted their religion" into something it was not; they had "hijacked" Islam, transforming it from a "religion of peace" into something less benign. So they were then called "radicals," "extremists," or the slippery description "Islamists."

What they are almost never called in the press is what they actually are: Islamic *fundamentalists*—people who embrace the fundamentals, the core principles, the basic foundational tenets of Islam. A "fundamentalist" is by definition *not* a radical or extremist. He is, rather, simply doing what his belief system requires—unhindered by the diluting or polluting influences of tradition or convention. The only way to identify what these things are is to consult their scriptures (as we have done). This is true of *any* religion or belief system—but especially one whose scriptures are purported to be the very word of God. And there are only two of these in existence: the Bible and the Qur'an.

The Bible's foundational premise can be boiled down to one thing: *love*, first for God and then for your fellow man. (See Luke 10:25-28.) In contrast, the Qur'an's can be stated like this: "*Fight* them until there is no more disbelief, and religion is only for Allah." (Qur'an 2:193) Both scriptural traditions spend an inordinate amount of time "fleshing out" these opposing directives. Both insist that their God alone is worthy of worship. And both groups are confident in the prospect of their vindication in the end.

But their methods and tactics are polar opposites. Christianity respects and celebrates free will: the choice of whom to serve is the prerogative of the individual. Christianity invites; it teaches; it reasons; it offers salvation from our fallen state through grace—the unmerited favor showered upon us by a holy but loving God who desires to share an intimate relationship with us for eternity. (Note: if your religion doesn't look like that, it's not really Christianity.) **"Let him who thirsts come. Whoever desires, let him take the water of life freely."** (Revelation 22:17) By definition, you can't force someone to receive Christ's grace.

Islam, on the other hand, relies on force, compulsion, threats of violence in this world and hell fire in the next, to make people submit to a life of pointless ritual and spiritual poverty that offers no chance of salvation or forgiveness from one's sins. Fighting—jihad—is the *only* way to earn the singular reward Allah offers to the select few: the carnal pleasures of eternal debauchery in paradise.

So whereas Christian fundamentalists love, Islamic fundamentalists fight. If I as a Christian don't love you (notice: I didn't say *agree* with you), I am rightly labeled a hypocrite—technically, a pretender. But the same distinction applies to Muslims: if they do not fight against you with the goal of either forcing you to submit to Allah and his messenger or killing you for non-compliance, then *they* are rightly described as hypocrites—and the Qur'an does that very thing. In short, if a "Christian" does not love, he is not really a follower of Christ (see I John 4:7-8.) But if a Muslim does not fight—if he does not participate in jihad against the hated infidels with his life and/or resources—then he is not really a follower of Muhammad, but is destined for the hottest fires of Allah's hell.

But wait. We are incessantly assured (by the same media who insist that Muslim terrorists are "radical extremists") that these Islamic fundamentalists those who favor Sharia law, the rule of the Islamic scriptures over any other authority—are a tiny minority, only a few percent of the total Muslim population. This may have been the case a hundred years ago, but it's not today. There are currently about 1.6 billion Muslims in this world, and at least forty-six nations in which they comprise the ruling majority. The question is, "Is radicalism in the Muslim world a tiny minority phenomenon, or are the fundamentalists actually in the majority?"

A 2009 Pew Research study set out to determine how many of these Muslims hold "radical" (i.e., fundamentalist) views. We're not trying to pin down the number of actual "blood-on-your-hands" terrorists, you understand, but rather how many people there are whose *belief system* aligns with them. After all, terrorists need financial support to do what they do, and Muhammad declared that one who equips and facilitates jihad is as "good" as the one who actually swings the scimitar. Not all of the countries they polled were ruled by Muslims, and they

didn't offer survey results for every Islamic nation, but their findings are significant nonetheless—and perhaps a little surprising.

The nations reported on are as follows. Indonesia: out of a total Muslim population of 205 million there are 143 million "radicalized" (i.e., fundamentalist) Muslims. Egypt: 55.2 million radicals (out of 80 million Muslims). Pakistan: 135.4 million radicals (out of 179 million Muslims). Bangladesh: 121.9 million radicals. Nigeria 53.7 million. Iran: 62.1 million. Turkey: 23.9 million. Morocco: 24.6 million. Iraq: 24.3 million. Afghanistan: 24 million. Jordan: 3.8 million. Palestinian-controlled areas: 3.8 million. And in the West? France: 1.6 million radical Muslims. Great Britain: 2.2 million. United States: about 500,000. That totals up to 680,030,000 radical, extremist, fundamentalist (whatever you want to call them) Muslims, out of a total survey population of 942.3 million Muslims, in eleven Muslim-majority nations (out of 46 candidates) plus three nations where they're in the minority. That's a pretty good cross-section, I'd say.

Let those statistics sink in. 72% of the Muslims who were surveyed—in nations large and small, both moderate and radical in reputation, whether in the majority or the minority—want Sharia law to be imposed worldwide. I think that's a large enough sample to reasonably extrapolate the trend out over the entire Muslim world—including places that weren't studied, like Somalia, Libya, Syria, the Sudan, and Algeria. 72% of 1.6 billion total Muslims in the world today comes out to 1,152,000,000 people on earth today who would like to see your butt in the air five times a day in prayer to a false god, and who would, if push came to shove, prefer to see you dead than in your current state of infidelity.

So if, as so many pundits suggest, you expect the "moderate" peaceful Muslims to convince the "radicals" to lay down their arms or stop funding jihad, I've got some bad news for you. Almost three quarters of the Muslims on this earth *agree with them* (and their scriptures)—even if they haven't yet taken up arms in order to try to force your conversion. If the statistics mean anything at all, they indicate that it's far more likely that the "radicals" will convince the "moderates" to join *them* in actively supporting Muhammad's insane dream of world domination. After all, the Islamic *scriptures* support the jihadists.

So there's not much point in blaming boys' clubs like al-Qaeda, the Taliban, Hezbollah, Hamas, and the Muslim Brotherhood for all the bad behavior in the world. Yes, these organizations have been identified and singled out as "terrorist groups" by the world's various governments (even Muslim ones). But there is only one unifying factor among them: Islam. They all take it seriously; they all believe and act upon what Muhammad put forth as the truth.

Today, the world seems to be trying to awaken from its politically correct selfinduced coma concerning the Muslim menace. And the knee-jerk reaction (to some) is to put a big military coalition together to root out and destroy these five organizations. But does this make sense? Not really. The problem, you see, is by no means unique to them. *Wikipedia* offers a long list of the world's "official" terrorist organizations. There are a smattering of Communists groups of course, a few Irish-Catholic terrorist clubs, and the odd separatist movement—Basques, Kurds, Tamils, etc. But the overwhelming majority of recognized terrorist organizations are driven by one thing and one thing only: Islam.

It's not just ten or twelve crazy clubs, either. Here's the list (restricted to Muslim terrorists, but without the "big five"): Abdullah Azzam Brigades, Abu Nidal Organization, Abu Sayyaf, Aden-Abyan Islamic Army, Akhil Bharat Nepali Ekta Samaj, al-Aqsa Foundation, al-Aqsa Martyrs' Brigades, Al-Badr, al-Gama'a al-Islamiyya, Al Ghurabaa, al-Haramain Foundation, Al-Itihaad al-Islamiya, Al-Mourabitoun, Al-Nusra Front, Al-Shabaab, Al-Umar-Mujahideen, All Tripura Tiger Force, Ansar al-Sharia, Ansar al-Islam, Jamaat Ansar al-Sunna, Ansar Bait al-Magdis, Ansar Dine, Ansaru, Armed Islamic Group of Algeria, Army of Islam, Osbat al-Ansar, Aum Shinrikyo, Babbar Khalsa, Balochistan Liberation Army, Caucasus Emirate, Comite' de Blenfaisance et de Solidarite' avec la Plestine, Deendar Anjuman, East Turkestan Islamic Movement, East Turkestan Liberation Organization, Ergenekon, Force 17, Great Eastern Islamic Raiders' Front, Haqqani network, Harkat-ul-Jihad al-Islami, Harkat-al-Jihad al-Islami, Harakat-Ul-Mujahideen, Harakat Sham al-Islam, Hezb-e Islami Gulbuddin, Hizb ut-Tahrir, Hizbul Mujahideen, Hofstad Network, Holy Land Foundation for Relief and Development, Houthis, Indian Mujahideen, Islamic Jihad, Jamaat Mujahideen, Islamic Movement of Uzbekistan, Islamic State of Iraq and the Levant, Jaish-e-Mohammed, Jaish al-Muhajireen wal-Ansar, Jamaat Ul-Furguan, Jamiat al-Islah al-Idzhtimai, Jamiat ul-Ansar, Jamiat-e Islami, Jemaah Islamiyah, Jamaah Ansharut Tauhid, Jund al-Sham, Kata'ib Hezbollah, Khalistan Commando Force, Khuddam ul-Islam, Lashkar-e-Taiba, Lashkar-e-Jhangvi, Libyan Islamic Fighting Group, Moroccan Islamic Combatant Group, Mujahideen Shura Council, Palestine al-muslima, Palestine Liberation Front, Palestinian Relief Development Fund, People's Mujahedin of Iran, Popular Front for the Liberation of Palestine, Quds Force, Sipah-e-Sahaba Pakistan, Society of the Revival of Islamic Heritage, Stichting Al Aqsa, Students Islamic Movement of India, Supreme Military Majlis ul-Shura of the United Mujahideen Forces of Caucasus, Takfir wal-Hijra, and let us not forget the Tehreek-e-Nafaz-e-Shariat-e-Mohammadi. Did I miss anybody? Probably.

One of these (the "Islamic State of Iraq and the Levant") stands out as an upand-comer in recent times, not because there's anything unique shaping their goals or world view, but because their tactics adhere a bit closer than usual to Muhammad's original *modus operandi*. They are famous for one thing: publically beheading or burning their captives in order to strike fear into their adversaries. As Muhammad said, "I have been made victorious through terror." Ishaq No.580 reports, "Our strong warriors obey his orders to the letter. By us Allah's religion is undeniably strong. You would think when our horses gallop with bits in their mouths that the sounds of demons are among them. [Well, *that's* true enough.] The day we trod down the unbelievers there was no deviation or turning from the Apostle's order. During the battle the people heard our exhortations to fight and the smashing of skulls by swords that sent heads flying. We severed necks with a warrior's blow. Often we have left the slain cut to pieces and a widow crying alas over her mutilated husband. 'Tis Allah, not man, we seek to please." Yes, I'm sure that if Allah were real, he'd be quite proud of you for killing everybody in sight.

But other tactics also mimic Muhammad's methods quite closely: they fund their operation through the *theft* of money and armaments (not primarily through donations from Islamist sympathizers, as most terror groups are supported). And they reward and motivate their fighters by giving them female captives as sex slaves to rape at will. It is exactly what "the prophet" did in order to gather a following after his exile to Yathrib (Medina). Qur'an 33:50: "O Prophet! We have made lawful to you all the wives to whom you have paid dowers; and those whom your hands possess out of the prisoners of war spoils whom Allah has assigned to you." Ishaq, No.511: "The women of Khaybar were distributed among the Muslims." Khaybar was an oasis Muhammad attacked in 629—the place to which the Jewish Banu Nadir tribe (whom he had robbed and exiled from Yathrib) had fled.

This newish terrorist group is called a variety of names. *Wikipedia's* list uses the one they themselves prefer—the Islamic State of Iraq and the Levant, or ISIL. Mind you, there *is* no "Islamic State." They have merely announced a caliphate, chosen a leader, and plundered their way to victory throughout large swaths of Syria and Iraq, killing Christians, Kurds, other minorities, and *even other Muslims* by the thousands. They are a Sunni terrorist group, which automatically places them in opposition to nearby Shia Iran. Tellingly, the Obama administration prefers to use the ISIL title because its incorporation of the designation "Levant" (a broad description of the entire area due east of the Mediterranean Sea) would imply that Israel is destined to be swallowed up by this Islamic state. Israel, like so many nations who ought to be considered allies of the United States, receives no respect from Mr. Obama's White House.

Most in the Western media call them ISIS—the Islamic State of Iraq and Syria—or simply IS—"the Islamic State." Another designation for the same group is "Daesh" or "Da'ish." *The Guardian* reports, "Daesh is an acronym for an Arabic variation of the group's name: *al-Dawla al-Islamyia fil Iraq wa'al Sham*. Most of the Middle East and many Muslims abroad use Daesh, saying that although the jihadists have declared the nebulous region they control a caliphate, they neither adhere to Islam [i.e., in its traditional quasi-hypocritical form] nor control a real state.... Supporters of ISIS dislike 'Daesh' because it...has become a pejorative in Arabic. Describing the word's history, *the Guardian's* Middle East editor Ian Black wrote in September that 'Daesh' has taken on a meaning beyond the jihadists' control: "in the plural form—'daw'aish'—it means 'bigots who impose their views on others.""

While Mr. Obama generally favors the Islamic cause in general (having been raised in Indonesia *as a Muslim*), he doesn't know quite what to do with ISIS. They're a political embarrassment. Their public brutality has made them an anathema worldwide—even among most Muslims. So although he has generally withdrawn most American forces from the region, he feels compelled to bomb ISIS strongholds from the air—making a show of "doing something" without actually engaging the enemy.

An interesting op-ed piece published on *YnetNews.com* (by Shoula Romano Horing, September 21, 2014) warns, "Iran is much more dangerous than ISIS. U.S. President Barack Obama must be careful not to 'degrade and destroy' ISIS in Iraq and Syria to the point of helping Iran and its axis of evil step into the vacuum that would be created and establish its own Islamic Shiite caliphate spreading from Lebanon through Syria and Iraq to Iran itself. This would be a serious threat to the moderate Sunni countries like Jordan, and the Persian Gulf states, and eventually to Israel and the West. Replacing the threat of a radical Islamic Sunni caliphate with the threat of a radical Islamic Shiite caliphate is shortsighted and could be a catastrophic strategic mistake to be regretted for generations to come.

"While ISIS is beheading Shiites, Yazidis, and Christians, the Syrian government, with the help of the Shiite Iranian Revolutionary Guard and Hezbollah terrorists, has been using air attacks, tanks, and chemical weapons to kill thousands of its own Syrian people, mostly Sunni civilians, in the last three years of the civil war. The only difference is that while ISIS uses social media, including YouTube and Twitter, to record and publicize their murderous and barbaric acts, Iran, Syria, and Hezbollah hide and deny their brutality and try to deceive the gullible world into believing that they are civilized."

We should address the historic animosity between Sunni Muslims and Shiites, for both sects are powerful in the region from which "Gog of the land of Magog" shall arise. Gog is the Islamic leader who will invade Israel during the first half of the Tribulation, as prophesied in Ezekiel 38-39. This future battle is extremely significant, for it will be the fuse that ignites World War III—a nuclear war involving dar al-Islam, Russia, Europe, and America—the second Seal (Revelation 6:3-4) and first Trumpet judgment (Revelation 8:6-7).

The Shiites, whose power base is in Iran, comprise only 10-15 percent of Islam, most of the rest adhering to the Sunni denomination. Both sects are

devoted to Allah and his messenger, of course, and both follow the Qur'an which makes them both dangerous. They are as close doctrinally as, say, Roman Catholics are to Lutherans—who have also fought bloody wars against each other for no apparent reason.

*Wikipedia* explains the split: "The historic background of the Sunni–Shia split lies in the schism that occurred when the Islamic prophet Muhammad died in the year 632, leading to a dispute over succession to Muhammad as a caliph of the Islamic community spread across various parts of the world, which led to the Battle of Siffin. The dispute intensified greatly after the Battle of Karbala, in which Hussein ibn Ali and his household were killed by the ruling Umayyad Caliph Yazid I, and the outcry for revenge divided the early Islamic community. Today, there are differences in religious practice, traditions, and customs, often related to jurisprudence. Although all Muslim groups consider the Qur'an to be divine, Sunni and Shia have [slightly] different opinions on hadith....

"Sunnis believe that Abu Bakr, the father of Muhammad's child-wife Aisha, was Muhammad's rightful successor and that the method of choosing or electing leaders (*Shura*) endorsed by the Qur'an is the consensus of the *Ummah* (the Muslim community).

"Shias believe that Muhammad divinely ordained his cousin and son-in-law Ali Ibn Abi Talib (the father of his grandsons Hasan ibn Ali and Hussein ibn Ali) in accordance with the command of God to be the next caliph, making Ali and his direct descendants Muhammad's successors."

What are the Last-Days ramifications of this historic Muslim rift—virtually as old as Islam itself? It is my theory (one I can't prove yet, of course) that for one brief moment in time, the Shiites and Sunnis will put aside their petty differences in the interests of uniting to destroy Israel once and for all. This will happen in the wake of the Antichrist's vaunted "covenant with many" (see Daniel 9:27) that will ostensibly bring "peace" to the Middle East—getting everyone to drop their guard. (Remember: "War is deceit.") The charismatic Islamic leader the Bible calls Gog (perhaps "the Mahdi" of Islamic prophecy or new caliph, maybe both) will unite Islamists from Iran, Iraq, Turkey, the "-Stans," and Africa. (Notably missing from Ezekiel's list: Saudi Arabia, Egypt, and Jordan—i.e., the Arab contingent. I'll address the Bible's Last Days Gog-Magog prophecy in a bit.)

So the rise of ISIS/Daesh is potentially of great prophetic import, though how it will all play out is still a matter of speculation. All I know for sure is that the Magog federation, though vastly superior in numbers, will be destroyed through miraculous means by Yahweh Himself—but not until they actually invade the Land of Israel. (By the way, if my chronological observations prove correct, this will all take place in late 2027 or early 2028, escalating into full-blown nuclear war by the spring of 2029.)

# Islamic Eschatology: Mahdi Fever

We Christians are often ridiculed for ordering our lives according to Biblical prophecy—you know: expectantly waiting for the return of our Messiah-King, laying up "treasures in heaven," counting on Yahweh (and not ourselves) to execute vengeance upon a rebellions earth in His own good time, and so forth. These prophecies are so ubiquitous in scripture, it took me 900 pages to "briefly" touch on all of them in *The End of the Beginning* (to which this present work is one of several appendices). But we are encouraged and made confident by the five hundred or so prophecies *already fulfilled* (many of them in mind-bendingly unexpected ways) in the life, death, and resurrection of the historical Yahshua. Only a fool could believe in a risen Christ without giving heed to what scripture reveals about events yet to come—especially as we see the end of the age approaching.

But we should be aware that the Muslim scriptures make prophetic predictions as well. Mind you, Muhammad never prophesied anything that can be historically verified, and never uttered a single prediction that has been specifically fulfilled. But he talked incessantly about a "Day of Doom" in which Islam would triumph, the earth would be destroyed (two virtually synonymous events, ironically enough), and all infidels and hypocrites would taste hell fire. He even pinned down the timing—which he got wrong.

Basically, he envisioned a creation that would endure only seven "days"—that is, seven thousand years. (If this sounds familiar, remember that Muhammad got all of his "raw theological data" from the rabbis of Yathrib—who were working from the Talmud, which in turn is based, more or less, on the Tanakh, the Hebrew scriptures. Judaism figured out Yahweh's seven thousand year timeline as far back as the second temple era.) So the Sunnah records the teaching of Muhammad: "Each day of the six in which He created corresponds to a thousand years. The conclusion is that the time elapsed from when Allah first began creating His creatures to when He finished is 7,000 years.... There is a duration of 7,000 years from the time when our Lord finished to the moment of the annihilation." (Tabari Book I, No. 224) The "Day of Doom," then, is to happen at the end of the 7,000 years.

And when is *that*? "The Prophet said, 'I was sent immediately before the coming of the Day of Doom. I preceded it like this one preceding that one'— referring to his index and middle finger." In other words, side-by-side—close together. "He said: 'Allah will not make this nation [i.e., Islam] incapable of lasting half a day—a day being a thousand years.' ...Consequently, based upon the Prophet's authority, what remained of time was half a day, of the days of which one is a thousand years. The conclusion is that the time that had elapsed to the Prophet's statement corresponds to 6,500 years." (Tabari Book I, No. 181,

182) That is, "half a day," or 500 years, will be the elapsed time between the coming of the last prophet (Muhammad) and the end of days. His "ministry" began in 610 A.D., so the Day of Doom is scheduled for 1110 A.D.

Oops. We missed that one by just a tad—900 years now, and counting. Even if you begin your "half day" at the *hijra* (622) or even Muhammad's death (632), the deadline of doom has long since passed. Okay, but could this "Day of Doom" have taken place without anyone noticing (you know, sort of like the fuzzy theology of preterists or amillennialists in Christianity)? Not really. Allah himself is reported to have said, "When the inevitable Event befalls abasing, there will be no denying.... Bringing low. Exalting. The earth shall be shaken with a terrible shaking, and the mountains shall be made to crumble with crumbling, so that they become powdered dust, floating particles." (Qur'an 56:1, 3) It's pretty hard to talk your way out of this one.

The bottom line is, neither Muhammad nor Allah can be relied upon to be trustworthy in their prophetic prognostications. But that doesn't prevent Muslims of all stripes from killing us (and each other) in anticipation of their fulfillments. In truth, the Islamic scriptures are so obtuse and esoteric, almost any teaching can be circumvented through the use of other, "friendlier" scriptures and fancy theological footwork. It's called *tawriya*: deceit by ambiguity. The imams do this all day long, finding support in the Sunnah, Hadith, and Qur'an for pretty much any doctrine or agenda they want to push at the moment.

One such doctrine—universal (though with slight variations) in both Sunni and Shia scriptural traditions—is that of the coming "Muslim Messiah" known as the Mahdi. I'll defer to Joel Richardson (*Answering-Islam.org*) to reveal what Muslims believe concerning this long-anticipated figure, in an article entitled "The Mahdi: Islam's Awaited Messiah."

"Among the Major Signs, the most anticipated and central sign that Muslims are awaiting is the coming of a man known as, 'The Mahdi.' In Arabic, al-Mahdi means, 'The Guided One' He is also sometimes referred to by Shia Muslims as Sahib Al-Zaman or Al-Mahdi al-Muntadhar, which translated mean 'The Lord of the Age' and 'The Guided/Awaited One.' The Mahdi is the first of the Major Signs. This is confirmed by Ibn Kathir, the renowned Muslim scholar from the eighth century: 'After the lesser signs of the Hour appear and increase, mankind will have reached a stage of great suffering. Then the awaited Mahdi will appear; He is the first of the greater clear signs of the Hour.'

"The coming of the Mahdi is the central crowning element of all Islamic endtime narratives. So central to Islamic eschatological expectations is the coming of the Mahdi, that some Muslim scholars do not even refer to 'the Minor Signs' as such, but instead, refer to them as, 'The signs accompanying the Mahdi.' While there are some variations of belief between the Sunni and Shia sects of Islam and while certain quarters of Sunnis reject him altogether, general belief in the Mahdi is not a sectarian issue within Islam, but is universal among most Muslims. According to Shaykh Muhammad Hisham Kabbani, chairman of the Islamic Supreme Council of America: 'The coming of the Mahdi is established doctrine for both Sunni and Shia Muslims, and indeed for all humanity.'

"Ayatullah Baqir al-Sadr and Ayatullah Murtada Mutahhari, both Shia Muslim scholars, in their book *The Awaited Savior*, describe the Mahdi this way: 'A figure more legendary than that of the Mahdi, the Awaited Savior, has not been seen in the history of mankind. The threads of the world events have woven many a fine design in human life but the pattern of the Mahdi stands high above every other pattern. He has been the vision of the visionaries in history. He has been the dream of all the dreamers of the world. For the ultimate salvation of mankind he is the Pole Star of hope on which the gaze of humanity is fixed.... In this quest for the truth about the Mahdi there is no distinction of any caste, creed, or country. The quest is universal, exactly in the same way as the Mahdi himself is universal. He stands resplendent high above the narrow walls in which humanity is cut up and divided. He belongs to everybody....'"

Gee, Ayatullahs, that's quite a man-crush you've got going there. Of course, I must admit that my enthusiasm for the return of Yahshua, the (real) Messiah, is no less passionate. But then again, it was Yahshua who informed us, "Then if anyone says to you, 'Look, here is the Christ!' or 'There!' do not believe it. For false christs and false prophets will rise and show great signs and wonders to deceive, if possible, even the elect. See, I have told you beforehand." (Matthew 24:23-25) In a word, we've been warned that people like the Mahdi—and the "prophets" who shill for them—will appear during the Last Days. Notice that it's *plural*—false "christs." Some folks these days are laboring under the illusion that all of the evil of the times will be manifested in the Antichrist—and that consequently, he and the Mahdi must be one and the same. Unfortunately, the dynamic of devastation in the Last Days will be a lot more complex: there's room for more than one villain in this plot—and Christ has promised to deal with all of them.

Richardson continues: "In the simplest of terms, the Mahdi is Islam's Messiah, or Savior. While the actual terms "Messiah" and "Messianism" very clearly have Judeo-Christian roots, University of Virginia Professor Abdulaziz Abdulhussein Sachedina agrees that these terms are appropriately used in an Islamic context when referring to the Mahdi. In his scholarly work on the subject, *Islamic Messianism*, Sachedina elaborates thusly: 'The term "messianism" in the Islamic context is frequently used to translate the important concept of an eschatological figure, the Mahdi, who as the foreordained leader 'will rise' to launch a great social transformation in order to restore and adjust all things under divine guidance. The Islamic messiah, thus, embodies the aspirations of his

followers in the restoration of the purity of the Faith which will bring true and uncorrupted guidance to all mankind, creating a just social order and a world free from oppression in which the Islamic revelation will be the norm for all nations.'

"Thus it is fair to say that the 'rising' of the Mahdi is to the majority of Muslims what the return of Jesus is to Christians. While Christians await the return of Jesus the Messiah to fulfill all of God's prophetic promises to the people of God, Muslims await the appearance of the Mahdi, to fulfill these purposes...." Technically, of course, Messiah (Hebrew: *mashiach*) simply means "anointed one," denoting someone (usually a king or priest) who is consecrated and set apart for a special role in God's plan. The Torah goes to great lengths to describe the process of priestly anointing—right down to the symbol-rich recipe for the anointing oil.

The Mahdi's lineage is prophesied: he is supposed to be from Muhammad's own family: "The first and most often cited Islamic belief with regard to the Mahdi is the tradition which states that the Mahdi will descend from the family of Muhammad and will bear Muhammad's name: 'The world will not come to pass until a man from among my family, whose name will be my name, rules over the Arabs.'—*Tirmidhi Sahih*." It's no coincidence that the most popular boy's name on earth today is Muhammad or Mohammed. ""The Prophet said: The Mahdi will be of my family, of the descendants of Fatimah [Muhammad's daughter].'—*Sunan Abu Dawud*." Yahshua's human lineage was prophesied, too. In His case, there were extant genealogical records to back up His Messianic credentials (see Matthew 1 and Luke 3). But the Muslim Mahdi will have no such documents with which to make his case: he's going to have to simply make his claims and hope people believe him. But there is no shortage of gullibility in Islam.

He is prophesied to become a universal leader for all Muslims, Shia and Sunni alike. "Throughout the Islamic world today there is a call for the restoration of the Islamic Caliphate. The Caliph (*Khalifa*) in Islam may be viewed somewhat as the Pope of the Muslims. The Caliph is viewed as the Vice-regent for Allah on the earth. It is important to understand that when Muslims call for the restoration of the Caliphate, it is ultimately the Mahdi that they are calling for, for the Mahdi is the awaited final Caliph of Islam. As such, Muslims everywhere will be obligated to follow the Mahdi. 'If you see him, go and give him your allegiance, even if you have to crawl over ice, because he is the Vice-regent of Allah, the Mahdi.'—*Ibn Maja*. 'He will pave the way for and establish the government of the family [or community] of Muhammad... Every believer will be obligated to support him.'—*Sunan Abu Dawud*."

"The Mahdi is believed to be a future Muslim world leader who will not only rule over the Islamic world, but the non-Muslim world as well. The Mahdi is said to lead a world revolution that will establish a new Islamic world order throughout the entire earth: 'The Mahdi will establish right and justice in the world and eliminate evil and corruption. He will fight against the enemies of the Muslims who would be victorious.'—*Sideeque M.A. Veliankode.* 'He will reappear on the appointed day, and then he will fight against the forces of evil, lead a world revolution and set up a new world order [interesting phrase, no?] based on justice, righteousness and virtue.... Ultimately the righteous will take the world administration in their hands and Islam will be victorious over all the religions.'—*Al-Sadr and Mutahhari.* 'He is the precursor of the victory of the Truth and the fall of all tyrants. He heralds the end of injustice and oppression and the beginning of the final rising of the sun of Islam which will never again set and which will ensure happiness and the elevation of mankind.... The Mahdi is one of Allah's clear signs which will soon be made evident to everyone.'—*Izzat and Arif.*'' If purple prose alone could get the job done, the Mahdi would be the greatest thing since sliced bread. But rhetoric won't help you win a war if Yahweh is against you (see Ezekiel 38:3).

It's worth noting that saying "the sun of Islam...will never again set" after the advent of the Mahdi isn't exactly what the Hadith claims (not that sorting out Islamic eschatology is remotely a straightforward endeavor). *Wikipedia's* article on the subject lists a number of things that are predicted to happen *after* the appearance of the Mahdi—and most of them look like bad news for Muslims:

"(1) A Black flag army will appear from Greater Khorasan. (2) The false messiah, Masih ad-Dajjal, shall appear with huge powers as a one eyed man with the other eye blind and deformed like a grape. He will claim to be God and to hold keys to heaven and hell and lead many astray, although believers will not be deceived. His heaven is the believers' hell, and his hell is the believers' heaven. (3) Medina will be deserted, with true believers going to follow Mahdi and sinners following Dajjal. (4) Isa [supposedly "Jesus"] returns from the second sky to kill Dajjal and wipe out all falsehood and religions other than Islam. He will then rule the world until he dies. (5) Ya'jooj and Ma'jooj (Gog and Magog), two tribes of vicious beings which had been imprisoned by Dhul-Qarnayn [Alexander the Great] will break out. They will ravage the earth, drink all the water of Lake Tiberias [a.k.a. Galilee—which will be quite a trick, because the fresh water in this lake sits atop a layer of salt water], and kill all believers in their way. Isa, Imam Al-Mahdi, and the believers with them will go to the top of a mountain and pray for the destruction of Gog and Magog. Allah will eventually send disease and worms to wipe them out. (6) Mecca will be attacked and the Ka'aba will be destroyed. (7) A pleasant breeze will blow from the south that shall cause all believers to die peacefully. (8) Qur'an will be forgotten and no one will recall its verses. (9) All Islamic knowledge will be lost to the extent where people will not say 'There is no god but Allah,' but instead old people will babble without understanding, 'Allah, Allah.' (10) Dabbat al-ard, or the Beast, will come out of

the ground to talk to people. (11) People will fornicate in the streets 'like donkeys.' (12) A huge black smoke cloud will cover the earth. (13) The sun will rise from the west. (14) The first trumpet blow will be sounded by Israfil, and all that is in heavens and earth will be stunned and die except what God wills; silence envelops everything for an undetermined period of time. And (15) the second trumpet blow will be sounded, the dead will return to life and a fire will start that shall gather all to *Mahshar Al Qiy'amah* (The Gathering for Judgment)."

Well, I'm glad we got *that* sorted out.

Back to Joel Richardson's treatise: "The Mahdi's means and method of accomplishing this world revolution will include multiple military campaigns or holy wars (jihad). While some Muslims believe that most of the non-Muslims of the world will convert to Islam peaceably during the reign of the Mahdi, most traditions picture the non-Muslim world coming to Islam as a result of being conquered by the Mahdi. Abduallrahman Kelani, author of *The Last Apocalypse*, describes the many battles of the Mahdi: 'Al-Mahdi will receive a pledge of allegiance as a caliph for Muslims. He will lead Muslims in many battles of jihad. His reign will be a caliphate that follows the guidance of the Prophet. Many battles will ensue between Muslims and the disbelievers during the Mahdi's reign...." This means that in order to be received as the Mahdi, the candidate will have to have a lot of blood on his hands.

"The Mahdi's ascendancy to power is said to be preceded by an army from the east who will be carrying black flags or banners of war. Sheikh Kabbani states: 'Hadith indicate that black flags coming from the area of Khorasan will signify the appearance of the Mahdi is nigh. Khorasan is in today's Iran, and some scholars have said that this hadith means when the black flags appear from Central Asia, i.e. in the direction of Khorasan, then the appearance of the Mahdi is imminent.' Another tradition states that: 'The Messenger of Allah said: The black banners will come from the East and their hearts will be as firm as iron. Whoever hears of them should join them and give allegiance, even if it means crawling across snow....'—*Abu Nu'aym and As-Suyuti*."

This brings up a factor of which we should all be cognizant when it comes to Islamic eschatology: self-fulfilling prophecies. Whoever wishes to appear to be the fulfillment of Muhammad's prophecies needs only to show up in the right places at the right times, doing the right things with the right accoutrements (such as the black flag), and *somebody* will follow him. Do you think it's a coincidence that ISIS/Daesh carries a black flag into battle with them? No—they want to be recognized as the long awaited Caliphate (the Islamic State), so they do what the Muslim scriptures have led the faithful to expect.

"Islamic tradition pictures the Mahdi as joining with the army of Muslim warriors carrying black flags. The Mahdi will then lead this army to Israel and reconquer it for Islam. The Jews will be slaughtered until very few remain and Jerusalem will become the location of the Mahdi's rule over the Earth." This particular self-fulfilling prophecy will get the Mahdi into trouble, as we shall see in a moment. "Rasulullah [Muhammad] said: 'Armies carrying black flags will come from Khurasan. No power will be able to stop them and they will finally reach *Eela* (*Baitul Maqdas* in Jerusalem) where they will erect their flags.' It is important to note here the reference above to '*Baitul Maqdas*.' In Arabic this means 'the holy house.' This is referring to the Dome of the Rock Mosque [technically, a shrine] and is located on the Temple Mount in Jerusalem...."

Thus the Mahdi will be *compelled* to invade Israel—it's not optional if he wants to be taken seriously. But this move will be his undoing—and ultimately, Islam's. Two Old Testament passages conspire to inform us of what will *really* happen (if Yahweh is God, and not Allah, that is. I think you know where I stand on that issue). Daniel 9:24-27 tells us that a treaty will be signed between Israel and "many" others (of necessity including their Islamic foes) that will allow them to rebuild their temple on the Temple Mount in exchange for something the Muslims say they want. The Mahdi will, of logistical necessity, sign the covenant—but only because he (and the rest of the Muslim world) know all too well that with Islam, war is deceit: you may lie all you like if it gives you a tactical advantage. Remember: tactical deceit known as *taqiyya* (Shia) or *muda'rat* (Sunni) are *required* for spreading Islam.

What tactical advantage? The second passage—Ezekiel 38 and 39—describes Israel at this time as "a land of unwalled villages." That is, as a result of the "covenant with many," they have turned over their defense to the group who ratified the treaty—in all likelihood, the United Nations. It would be my guess that the "West Bank" will have been surrendered under the terms of the agreement to provide a homeland for the "Palestinians," leaving Israel only nine miles wide at its narrowest point. In other words, it's a sitting duck, but for a treaty that any self-respecting jihadist knows isn't worth the paper it's printed on.

Ezekiel's prophecy centers on a figure named "Gog," who is a perfect fit for the Muslims' expected Mahdi. Gog hails from a place called "Magog" (named after a man mentioned in the Genesis 10 "Table of Nations"), a territory once known as the Scythian empire, stretching across southern Eurasia from Turkey and the Caucasus region through southern Russia, northern Syria, Iraq, and Iran, and on into India. This is in alignment (for what it's worth) with the Islamic requirement that the Mahdi (or at least some of his armies) will come from "Khorasan," that is, in Iran.

Because the Islamic prophecy insists that the Mahdi (the Bible's Gog) must invade Israel, we can count on anyone aspiring to the title to attempt that very thing. But Ezekiel explains that it is Yahweh who is drawing him to his doom. Here are a few snippets from Ezekiel 38 and 39: "Thus says the Lord Yahweh: Behold, I am against you, O Gog.... I will turn you around, put hooks into your jaws, and lead you out, with all your army.... On that day it shall come to pass that thoughts will arise in your mind, and you will make an evil plan. You will say, 'I will go up against a land of unwalled villages; I will go to a peaceful people, who dwell safely, all of them dwelling without walls, and having neither bars nor gates, to take plunder and to take booty'.... "You will come from your place out of the far north, you and many peoples with you, all of them riding on horses [i.e., they're a well-equipped fighting force], a great company and a mighty army. You will come up against My people Israel like a cloud, to cover the land. It will be in the latter days that I will bring you against My land, so that the nations may know Me, when I am hallowed in you, O Gog, before their eyes....

"I will call for a sword against Gog throughout all My mountains," says the Lord Yahweh. Every man's sword will be against his brother. And I will bring him to judgment with pestilence and bloodshed; I will rain down on him, on his troops, and on the many peoples who are with him, flooding rain, great hailstones, fire, and brimstone. Thus I will magnify Myself and sanctify Myself, and I will be known in the eyes of many nations. Then they shall know that I am Yahweh.... "I will knock the bow out of your left hand, and cause the arrows to fall out of your right hand. You shall fall upon the mountains of Israel, you and all your troops and the peoples who are with you; I will give you to birds of prey of every sort and to the beasts of the field to be devoured. You shall fall on the open field; for I have spoken, says the Lord Yahweh. And I will send fire on Magog and on those who live in security in the coastlands." (For a detailed analysis of this whole episode, see Chapters 15-17 of this work.)

The gauntlet, it would appear, has been thrown. The battle itself is prophesied in both the Islamic and Judeo-Christian scriptures, but the predicted outcomes are polar opposites. Make no mistake: this is a "prophets' duel" the likes of which we haven't seen since Elijah vs. the prophets of Ba'al on Mt. Carmel (I Kings 18), but this time, the fallout will affect the entire planet. If the Mahdi's Islamic forces take and hold Jerusalem, then Yahweh will have been proved a liar, and Allah will be vindicated. But if things transpire as Ezekiel prophesied, then the Mahdi and his invading hordes will be killed through miraculous means, Yahweh will be proved (again) to be God, and Allah will be worshiped no more—following Ba'al into the trash heap of history.

And note one more thing: the Mahdi *cannot* be the Antichrist (as some commentators suggest) because he (i.e., Gog) is seen here being killed in battle "upon the mountains of Israel," not cast alive into the lake of fire, as is revealed in Revelation 19:20. You can't have it both ways, just because both of them "need killing."

But notice the last sentence I quoted: "And I will send fire on Magog and on those who live in security in the coastlands." (Ezekiel 39:6) Just as Assyria's Sennacherib

and Babylon's Nebuchadnezzar were tools in the hands of God to chastise apostate Israel and Judah, the *Antichrist himself* will be the "torch" Yahweh uses to "send fire" (i.e., nuclear war) upon dar al-Islam and "the coastlands" (apparently, Europe, Russia, and America, at the very least). The first four Seal judgments (whose death toll is recorded under the Fourth Seal as "a fourth of the earth"—see Revelation 6:1-8) and the First Trumpet judgment (Revelation 8:7) make it clear that this nuclear war will come as a direct result of the Antichrist's influence and policy. This sort of genocidal thermonuclear foolishness has been a distinct possibility since the 1950s, but the Holy Spirit's power in restraining evil has kept a lid on it—and will continue to do so until after the rapture (see I Thessalonians 2:7). But after the harvest, the chaff will be hauled off to the furnace: World War III.

Richardson next explores the prophesied duration of the Mahdi's reign. "While there is more than one tradition regarding the nature and timing of the Mahdi's ascendancy to power, there is one particular hadith that places this event at the time of a final peace agreement between the Arabs and the Romans ('Romans' should be interpreted as referring to Christians, or more generally, the West). Although this peace agreement is made with the 'Romans,' it is said to be mediated specifically through a Jew from the priestly lineage of Aaron. The peace agreement will be made for a period of seven years...."

Once again, we see a remarkable (or is that "planted") parallel between the Islamic scriptures and the Bible. The Daniel 9 prophecy (v. 27) states that the "covenant with many," put forth by the "Prince who is to come" (the Antichrist, identified as being of the people who "shall destroy the city and the sanctuary," i.e., the *Romans*) will be "confirmed for one week" (literally, a "seven"—that is, *a seven-year period*). So it's clear that the Mahdi will lead the Islamic world in agreeing to the "peace" being proposed by "the Roman," the Antichrist—or at least pretend to in order to gain a military advantage and the element of surprise.

And what was that about a Jewish priest's involvement? As it turns out, the Antichrist is prophesied to have his own "John the Baptist"-style forerunner and associate, identified in Revelation 13:11 as "the beast coming up out of the earth" (in contrast to the Antichrist, called the "beast from the sea"). Whereas the "sea" is a common Biblical metaphor for the gentile world, the land or the earth usually means Israel. So it seems reasonable to conclude that this "false prophet" (as he's also known) will be Jewish. The Bible doesn't say anything about him being of the line of Aaron, but the temple and its service are once again in view (as Daniel 9:27 intimates in the very next sentence), after a hiatus of almost two thousand years—so who knows?

Richardson's treatise on the Mahdi concludes with this summary of what is prophesied of him: (1) "The Mahdi is Islam's primary messiah figure. (2) He will

be a descendant of Muhammad and will bear Muhammad's name (Muhammad bin Abdullah). (3) He will be a very devout Muslim. (4) He will be an unparalleled spiritual, political and military world leader. (5) He will emerge after a period of great turmoil and suffering upon the earth. (6) He will establish justice and righteousness throughout the world and eradicate tyranny and oppression. (7) He will be the Caliph and Imam (vice-regent and leader) of Muslims worldwide. (8) He will lead a world revolution and establish a new world order. (9) He will lead military action against all those who oppose him. (10) He will invade many countries. (11) He will make a seven year peace treaty with a Jew of priestly lineage. (12) He will conquer Israel for Islam and lead the "faithful Muslims" in a final slaughter/battle against Jews. (13) He will establish the new Islamic world headquarters in Jerusalem. (14) He will rule for seven years (possibly as many as eight or nine). (15) He will cause Islam to be the only religion practiced on the earth. (16) He will appear riding a white horse (possibly symbolic). (17) He will discover some previously undiscovered biblical manuscripts that he will use to argue with the Jews and cause some Jews to convert to Islam. (18) He will also re-discover the Ark of the Covenant from the Sea of Galilee, which he will bring to Jerusalem. (19) He will have supernatural power from Allah over the wind and the rain and crops. (20) He will possess and distribute enormous amounts of wealth. (21) He will be loved by all the people of the earth." Be still, my heart.

There are any number of recent developments that Islamic theologians tout as indicators that the Mahdi's arrival is near. They point out the ramifications presented by the transition of power required by the death of an aged king in oilrich Saudi Arabia. They recognize the importance of certain strategic victories gained by ISIS, like the taking of the prophetically significant city of Dabiq. Meanwhile, individual Muslims worldwide are gaining the confidence to attack the hated infidels in their own homes—or die trying, "knowing" that paradise awaits the martyrs. They are increasing in numbers, in wealth, in political presence, and in their ability to intimidate with impunity. Islam, in short, is on a roll. Their final triumph is almost at hand, or so it would seem.

Of course, the same thing could be said of secular humanism, couldn't it?

How will Islam fare during the Last Days? Will they be victors, villains, or victims? They themselves smell the scent of conquest in the air, though people in their path are apt to see them as a plague. The Bible portrays them as transitioning suddenly and unexpectedly from victorious villains into victims. Their own scripture-based expectations and strategies will be the catalyst that transforms the world's geopolitical reality from its present state of shaky equilibrium into one of utter chaos—the sort of anarchic environment that simply *begs* for an all-powerful one-world government to rein in the madness. In short, without the Muslim

menace, the "need" for a world dictator like the Antichrist might never become universally apparent.

The world, in the end, is too small for both Islam and any other belief system. One way or another, either it must be destroyed, or everything else must be. But as I said, the earth's religious demographics today are very evenly divided between the religions of despair, denial, death, and compromise—with only a tiny minority truly desiring that Yahweh's will would "be done in earth as it is in heaven" (Matthew 6:10). Everyone else is looking for *their own* "will" to be done on earth, whether or not they think heaven even exists.

There is, in fact, a feeling in the air among many people of faith these days one of expectation, hope, excitement, and anticipation. The *object* of this feeling depends, of course, on who (or what) one believes "god" to be. Christians, even those who know very little about prophecy, are somehow awakening to the prospect of Christ's seemingly imminent return. Religious Jews share a distinct impression that their Messiah's coming could be very near. Their restored presence in the Land of Israel has reawakened Messianic longings suppressed for millennia. Even atheists can almost taste their final victory, something they perceive to be just around the corner: a New World Order in which anarchy, superstition, and fuzzy thinking will be vanguished under the rule of an enlightened elite operating under benign humanist principles destined to transform the world into a utopian paradise—no matter how much the human herd must be "thinned." And Muslims tingle with anticipation at the rapidly approaching dawning of a new Islamic golden age under the Twelfth Imam of legend, the blessed Mahdi, who will bathe the hated Jews and Christians (and everybody else) in blood while ruling in Islamic "peace" from Jerusalem.

It should be obvious by now that Judeo-Christian hopes, the schemes of secular humanists, and the dreams of the Muslim faithful cannot coexist—no matter what the bumper stickers advocate. It matters not that the "signs" anticipated by each rival faction are rapidly coming to pass, just as expected. To an impartial outside observer (something I admittedly am *not*), it should be clear that we are on a collision course with destiny. The tension cannot continue to build indefinitely. But since Christians (and to some extent Jews) are content to wait patiently on God's perfect timing, the inevitable violent encounter on the world's present track will most assuredly pit atheism against Islam.

For those alarmed at the sudden rise of Islamic fundamentalism in places previously dominated by Judeo-Christian values, I've got good news, and I've got bad news. The bad news is that Islamic terror in the West cannot be *stopped* short of genocide; and it can't even be *slowed* short of the mass deportation (call it exile if you like) of all Muslims to their countries of ethnic origin—citizenship be damned. But no sane or compassionate person is prepared to do either thing. Morals almost always trump patriotism. Christians in particular are forbidden by their God from murdering people in cold blood just because they're a threat. They're *lost*, after all, in need of a Savior, just as we once were. Our job is to introduce them to Christ—or die trying. (Atheists, of course, labor under no such qualms.)

The good news is that the rise of fundamentalist (i.e., terrorist) Islam coupled with the immense financial clout of the secular humanist money machine mean that the return of our Savior for His church *can't* be all that far off. Once Islam reaches majority status in the world—meaning growing (whether through conquest or by prodigious breeding) from today's almost a quarter of the world's population to half, something that could happen in a generation—religious freedom in the world will be a thing of the past: Christians and Jews will be hunted down and murdered in the streets. And it won't help that the secular humanists don't like us any better than the Muslims do: given a free hand, they would outlaw Christianity and persecute the church to within an inch of its life.

But Christ promised us that the "gates of sheol" would not prevail against his church. And remember: the church of the rapture—Philadelphia—was described as people who still **"have a little strength, have kept My word, and have not denied My name"** (Revelation 3:8), whereas the Great Tribulation is described as a time in which **"the power of the holy people has been completely shattered."** (Daniel 12:7) I take all that as a virtual *guarantee* that His Last-Days program, beginning with the rapture of the church and the sequestering of the Jewish remnant, will commence shortly—before the forces of Islam or atheism can grow strong enough to snuff out the light of liberty and truth from the earth.

Islam's ascendency is just one more of the scores of factors we've seen, conspiring to inform us that the Messiah's Millennial Kingdom will begin in the fourth decade of the twenty-first century. How many more of these harbingers will it take for the world to wake up?

# The Religion of Compromise.

I am going to be walking on eggshells for the next few pages, for the subject of this section is a religion that purports to embrace the same God I serve. Unlike Hindus, atheists, or Muslims, I cannot automatically assume that individual adherents of this religion are "lost." Indeed, my chance encounters with these folks begin (on my part) with the supposition of brotherhood, of agreement about the basic tenets of our shared faith.

The belief system to which I refer is (for lack of a better description) "Liturgical Christianity." It's Christianity *as a religion*, set in contrast to the sort of faith described in the New Testament: a simple relationship with Yahweh, achieved through our Savior Yahshua the Messiah (a.k.a. Jesus Christ), resulting in fellowship and mutual love among the faithful. I fully realize that there is (or can be) a great deal of overlap between the two things. But liturgical, institutional, *religious* Christianity all too often becomes—whether by accident or design—the *object* of worship in the experience of the faithful, not the conduit of faith it should have been.

Labels are clumsy tools, but clear communication sometimes demands their use: I'm talking here primarily about the Roman Catholic Church and its historic spin-offs, such as the various Eastern Orthodox churches (though some of them actually predate the Roman system), Protestant denominations (like the Church of England) that were formed for political (not scriptural) reasons, and other variants of "Catholicism Lite" in which the apple didn't fall all that far from the tree. Together, these institutions comprise 21-22% of the earth's current population.

To put things in perspective, Roman Catholicism and Sunni Islam are in a dead heat for the title of the world's number one religious splinter group. There are far more Catholics in the world than any other "flavor" of Christian. Unfortunately (for them) there is no correlation between popularity and truth. Quite the contrary, in fact. Yahshua said: "Enter by the narrow gate; for wide is the gate and broad is the way that leads to destruction, and there are many who go in by it. Because narrow is the gate and difficult is the way which leads to life, and there are few who find it." (Matthew 7:13-14) Of course, one could argue that *Christianity* in its broadest sense is still a minority in this world, so we need to be careful about who we perceive as "following the way that leads to destruction."

In the strictest sense, a relationship with Yahweh is defined by one thing: the Holy Spirit's indwelling. Without it, one is *by definition* on the "broad way that leads to destruction." Christ explained it all to Nicodemus: "Most assuredly, I say to you, unless one is born again [literally: from above], he cannot see the kingdom of God.... Unless one is born of water and the Spirit, he cannot enter the kingdom of God. That which is born of the flesh is flesh, and that which is born of the Spirit is spirit. Do not marvel that I said to you, 'You must be born [from above].'" We are the products of our parentage: as our mortal bodies are a composite of the DNA of our fathers and mothers, our eternal potential can only be realized through our souls' "birth" to *eternal* parents (so to speak)—Yahweh and His Holy Spirit. "The wind blows where it wishes, and you hear the sound of it, but cannot tell where it comes from and where it goes. So is everyone who is born of the Spirit...." The point here is that the Spirit's indwelling can only be discerned by the evidence of a transformed life.

And what is the mechanism through which the Holy Spirit comes to indwell a person's soul? It is belief—*faith*: the conscious decision to place one's trust in the efficacy of the sacrifice of Christ, the Son of God, and nothing else. It was all foretold (symbolically, anyway) in the Torah. **"As Moses lifted up the serpent in the** 

wilderness, even so must the Son of Man be lifted up, that whoever believes in Him should not perish but have eternal life. For God so loved the world that He gave His only begotten Son, that whoever believes in Him should not perish but have everlasting life. For God did not send His Son into the world to condemn the world, but that the world through Him might be saved. He who believes in Him is not condemned; but he who does not believe is condemned already, because he has not believed in the name of the only begotten Son of God...." That seems simple enough: he who believes/trusts/relies upon the sacrificial death and resurrection of Yahshua has eternal life—the result of Yahweh's eternal Spirit dwelling within him. No belief, no salvation.

Thus the default—the state into which we're born—is "condemnation," which is a somewhat misleading translation. The Greek word is *krino*: the state of having been separated, judged, or having had our worthiness determined by judicial decision or decree, as in a court of law. (We tend to read "condemnation" into that because we know we're unworthy before God.) Belief in-reliance upon-Christ's atoning sacrifice extricates us from this unfortunate condition. Good works (though "good") have absolutely nothing to do with it. "And this is the condemnation [i.e., the thing that separates us from God, the issue upon which we're judged], that the light has come into the world, and men loved darkness rather than light, because their deeds were evil. For everyone practicing evil hates the light and does not come to the light, lest his deeds should be exposed. But he who does the truth comes to the light, that his deeds may be clearly seen, that they have been done in God." (John 3:3, 5-8, 14-21) This is where it gets sticky. All of us have done "evil deeds." It is part and parcel of being human. What separates the redeemed/saved/truthful person from the lost/condemned/evil one is his desire to live in "the light," honest and transparent about our sinful condition and our subsequent need for a Savior. This light, then, is the trusting realization that Christ's sacrifice achieves what the best of our works cannot: reconciliation with God.

The problem (potentially) with Christianity *as a religion* is that it can take the place of "the light" in the life of the believer. Whether or not it was intended, that can be the effect of imposing doctrine (beyond what is plainly taught in scripture), ritual, tradition, and a hierarchy of human authority upon the assembly of believers. It is this issue—whether scripture or man has the final authority to "speak for God"—that precipitated the Protestant Reformation.

The issue is called *Sola Scriptura* (Latin: "by Scripture alone"). It is "the Protestant Christian doctrine that the Bible is the supreme authority in all matters of doctrine and practice. *Sola Scriptura* does not deny that other authorities govern Christian life and devotion, but sees them all as subordinate to and corrected by the written word of God."—*Wikipedia*.

Kenneth R. Samples, writing for the Christian Research Institute (*Equip.org*) gives us more information, in an article entitled "Protestant Understanding of *Sola*"

*Scriptura.*" He writes, "By *Sola Scriptura* Protestants mean that Scripture alone is the *primary* and absolute source for all doctrine and practice (faith and morals). *Sola Scriptura* implies several things. First, the Bible is a direct revelation from God. As such, it has divine authority, for what the Bible says, God says....

"Second, the Bible is *sufficient*: it is all that is necessary for faith and practice. For Protestants 'the Bible alone' means 'the Bible only' is the final authority for our faith..." the assumption being that the Bible actually *is* the Word of God, and therefore supersedes all human opinion or logic.

"Third, the Scriptures not only have sufficiency but they also possess final *authority*. They are the final court of appeal on all doctrinal and moral matters. However good they may be in giving guidance, all the fathers, Popes, and Councils are fallible. Only the Bible is infallible....

"Fourth, the Bible is *perspicuous* (clear). The perspicuity of Scripture does not mean that *everything* in the Bible is perfectly clear, but rather the essential teachings are. Popularly put, 'in the Bible the main things are the plain things, and the plain things are the main things.' This does not mean—as Catholics often assume—that Protestants obtain no help from the fathers and early Councils. Indeed, Protestants accept the great theological and Christological pronouncements of the first four ecumenical Councils. What is more, most Protestants have high regard for the teachings of the early fathers, though obviously they do not believe they are infallible. So this is not to say there is no usefulness to Christian tradition, but only that it is of secondary importance....

"Fifth, Scripture *interprets* Scripture. This is known as the analogy of faith principle. When we have difficulty in understanding an unclear text of Scripture, we turn to other biblical texts, for the Bible is the best interpreter of the Bible. In the Scriptures, clear texts should be used to interpret the unclear ones."

Again, there is an assumption involved: if the Bible is the Word of God, then properly understood, it will be internally consistent. The truth may be presented in many different ways, but it will always agree with itself. Thus if we seem to have encountered a contradiction, it *automatically* means that we have misinterpreted one (or both) of the passages in question.

The ultimate example (for me, anyway) is the topic of this book, *The End of the Beginning*. Bible prophecy is a complex, often mysterious subject, and there are many "schools of thought" out there. But when you put *all* of the puzzle pieces on the table (as I have attempted to do) the seeming contradictions sort themselves out, to the point that a remarkably cohesive story is presented, with no inconsistency and very little ambiguity. As you may have noticed, I pretty much live by the rule of *Sola Scriptura* (though I tend to give far less credence to the teaching of the Early Fathers than Mr. Samples would suggest). In the study of

prophecy in particular, one can get hopelessly lost if he doesn't allow scripture alone (as illuminated by the Holy Spirit within us) to shape our understanding of scripture.

But there is one caveat. Our English translations (or presumably any other language) sometimes fail to accurately convey what the original Hebrew and Greek scriptures say. It could be the fault of cultural baggage being lost in translation, shifting word usage, assumptions based on man-made theological traditions (which explains my reluctance to rely too heavily on the church Fathers), errant punctuation, textual transmission inconsistencies, innocent mistakes, or even out-and-out fraud. (I'm sure you've noticed my constant harping on the fact that God's Self-revealed name, Yahweh, has been fraudulently edited out of the Old Testament texts by the translators some seven thousand times, and replaced with a relatively anemic title, "the Lord." You may even have noticed that I've restored the divine name in my scriptural quotes where it appeared in the original text.)

Fortunately, it is possible today for anyone with an Internet connection to gain valuable insight into what God's apostles and prophets really meant to say. Dozens—perhaps *hundreds*—of great English language Bible-study resources are offered free online. Personally, I also find that an extensive library (gathered over the past forty years) and some really cool Bible software are also of immeasurable help in getting to the bottom of what Yahweh's Word is talking about by explaining what the words—their nuance and innuendo—actually mean in the original languages. We who live in the English-speaking world in the twenty-first century are blessed with tools our forefathers couldn't have imagined. Just remember: to whom much is given, much is required.

So I, with millions of others, find *Sola Scriptura* an essential, eminently logical principle. Many Catholics, however, would beg to differ. For example, Patrick Madrid (*ewtn.com*) calls *Sola Scriptura* "a blueprint for anarchy." He writes, "Catholics need to realize just how untenable *Sola Scriptura* is and simply ask that it be proven from the Bible. Instead of allowing himself to be put on the defensive when purgatory, the Real Presence, or some other Catholic doctrine is challenged by a demand that it be proven from Scripture [because they can't be], the Catholic should ask, 'Where does the Bible teach *Sola Scriptura*?'" It's the classic "deflection" ploy: if you can't answer a question, ask one of your own, based on your own world view. So, did Noah or Abraham rely on the scriptures? No, of course not. So obviously, "The Catholic case against *Sola Scriptura* may be summarized by saying that *Sola Scriptura* is unhistorical, unbiblical and unworkable...."

You think *Sola Scriptura* isn't a Biblical concept? Okay, what about this? **"You** shall not add to the word which I command you, nor take from it, that you may keep the

commandments of Yahweh your God which I command you." (Deuteronomy 4:2) Or this: "Whatever I command you, be careful to observe it; you shall not add to it nor take away from it." (Deuteronomy 12:32) Oh, wait: your church fathers took it upon themselves to declare the Law of Moses worthless, violating Moses' "take away from it" provision, even though the Christ you say you follow said, "Do not think that I came to destroy the Law or the Prophets. I did not come to destroy but to fulfill. For assuredly, I say to you, till heaven and earth pass away, one jot or one tittle will by no means pass from the law till all is fulfilled." (Matthew 5:17-18) When you find yourself in a hole, perhaps you should stop digging.

How about this? "For I testify to everyone who hears the words of the prophecy of this book: If anyone adds to these things, God will add to him the plagues that are written in this book; and if anyone takes away from the words of the book of this prophecy, God shall take away his part from the Book of Life, from the holy city, and from the things which are written in this book." (Revelation 22:18-19) Or this: "All Scripture is given by inspiration of God, and is profitable for doctrine, for reproof, for correction, for instruction in righteousness, that the man of God may be complete, thoroughly equipped for every good work." (II Timothy 3:16-17) Or conversely, "There is a way that seems right to a man, but its end is the way of death." (Proverbs 16:25) For that matter, the entire 119<sup>th</sup> Psalm is a treatise on the veracity of *Sola Scriptura*.

The remarkable thing is, prophetic scripture actually *predicted* (between the lines, at least) that the "church" would develop a penchant for ignoring God's word in favor of man's wisdom, such as it is. And I'm not just talking about all those passages warning us of false teachers in our midst. The seven letters from the risen Christ in Revelation 2 and 3, written to the churches of Asia Minor, foresee our proclivity to lose focus. Each local assembly on the list, in addition to having its own issues, prophetically represents the prevailing character of each successive stage of the church throughout the age.

The first assembly on the list, Ephesus, represents the church during the apostolic age. They were admonished that, for all their good works, they had "left their first love" (their focus on Christ). But at least they hadn't fallen for the "deeds of the Nicolaitans," and for that they were commended. Although there is little consensus concerning who the Nicolaitans were, it seems certain that their doctrine advocated compromise and accommodation with the prevailing pagan practices in the gentile world—especially in the matter of sexual immorality, something invariably associated with idolatry in the Torah. Part and parcel with the Nicolaitans' desire to accommodate pagan practice was the *structure* of pagan worship—a system reliant on priestly hierarchy, an emphasis on works (including, of course, the financial support of the sect), and hidden mysteries achieved through degrees of enlightenment.

There is apparently also a connection between Nicolaitanism and the Gnostic heresy (from *gnosis*—"to know"), which held that things done in the body were disconnected from the spiritual realm. It was presumed by the Gnostics that their "exclusive spiritual knowledge" gave them the freedom to participate in all sorts of sexual indulgence—such as that being offered by the open prostitution of the pagan temples. Their theory was, since they had been illuminated by "divine knowledge," it didn't matter how they lived in the body, because the flesh was evil and would be separated from the spirit when the body invariably died.

The second church, in Smyrna, received no reprimand from Yahshua, only encouragement, for they were suffering persecution for their faith. The persecution of the church would last until the early fourth century, when the Roman Emperor Constantine "converted" to Christianity. The "Roman Catholic" church as such ("catholic" meaning universal) was born with Constantine's "Edict of Toleration, and the nature of the danger we faced suddenly changed forever from an external threat to internal one—from persecution from without to cancer from within.

So in the next few church-ages on Christ's mailing list, we see an increasing trend toward compromise and corruption. Pergamos was chastised for having welcomed the very heresy that the Ephesians had resisted—the doctrine of the Nicolaitans. Here it is compared to the "doctrine of Balaam," who was famous for having compromised Israel's integrity by advocating that Moab tempt the Israelites with sex-based idolatry and eating food that had been offered to idols: if Balaam couldn't get Yahweh to curse Israel, the plan was to get Israel to curse God instead. By the Middle Ages, this threat was fully ensconced in the church.

The trend only got worse in Thyatira, where someone identified as "Jezebel," calling herself a "prophetess," openly advocated the same sorts of corrupt practices—something Christ's letter called "seduction." There was always a faithful remnant, but the whole culture of the church had been compromised, blended with the idolatrous practice of the pagan world. Thyatira thus represents the church at the height of Roman Catholic power.

Compromised like this, the church could only decline. By the time we get to Sardis, we are told that despite their *reputation* for being alive, the church was now as good as dead. Yahshua admonished them to **"Remember therefore how you have received and heard; hold fast and repent."** (Revelation 3:3) Fortunately, some did. The Protestant Reformation of the sixteenth century, led by the likes of Martin Luther, John Calvin, and Huldrych Zwingli, followed groundwork that had been laid by guys like John Hus, Jerome of Prague, Savonarola, and Peter Waldo. And let us not forget the groundbreaking Bible translation efforts of courageous men like John Wycliffe and William Tyndale—the foundation of *Sola Scriptura* in the English language. It was all a reaction against what had become the Religion of Compromise—the corrupt, top heavy, liturgical monstrosity known as Roman Catholicism. Mind you, I'm not saying the Reformers got everything right, nor that the Catholic laity was universally defiled. (Christ Himself, in v.4, notes that they were not.) But hearing your God say, **"You have a name that you are alive, but you are dead"** (v.1) *can't* be a good thing.

There remain but two churches on Yahshua's mailing list, both of who arose from the comatose condition of Sardis. Philadelphia was built on the work of those who repented. They received no rebuke at all, but were encouraged to hold fast to their testimony—keeping Christ's word, not denying His name, and steadfastly guarding His truth. Philadelphia, then, is *not* part of the Religion of Compromise. In fact, it is they (those still alive) who will experience the rapture of the church (see Revelation 3:10).

The Religion of Compromise today, then, is defined as the offspring of the churches who did *not* repent. Christ had cautioned Pergamos, "Repent, or else I will come to you quickly and will fight against them [the Nicolaitan compromisers] with the sword of My mouth." (Revelation 2:16) Thyatira was warned, "I will cast [Jezebel] into a sickbed, and those who commit adultery with her into great tribulation, unless they repent of their deeds. I will kill her children with death, and all the churches shall know that I am He who searches the minds and hearts." (Revelation 2:22-23). And Sardis had been told, "If you will not watch, I will come upon you as a thief, and you will not know what hour I will come upon you." (Revelation 3:3) It couldn't be plainer: the Religion of Compromise will be *left behind* when Philadelphia is raptured, "kept out of the hour of trial which shall come upon the whole world, to test those who dwell on the earth." (Revelation 3:10) Unless they repent.

What, then, does their spiritual profile look like? This was written to the final church, that of Laodicea: "I know your works, that you are neither cold nor hot. I could wish you were cold or hot. So then, because you are lukewarm, and neither cold nor hot, I will vomit you out of My mouth, because you say, 'I am rich, have become wealthy, and have need of nothing'—and do not know that you are wretched, miserable, poor, blind, and naked." (Revelation 3:15-17) This is the Religion of Compromise that is so prevalent in the world today. They are self-deluded, apathetic, and nauseating to both God and man.

Though they *look* "religious," they are a big part of the Last Days horror story depicted by Paul: "But know this, that in the last days perilous times will come: For men will be lovers of themselves, lovers of money, boasters, proud, blasphemers, disobedient to parents, unthankful, unholy, unloving, unforgiving, slanderers, without self-control, brutal, despisers of good, traitors, headstrong, haughty, lovers of pleasure rather than lovers of God, having a form of godliness but denying its power. And from such people turn away! For of this sort are those who creep into households and make captives of gullible women loaded down with sins, led away by various lusts, always learning and never able to come

to the knowledge of the truth." (II Timothy 3:1-7) Paul's admonition to Timothy to "turn away" from such people is a dead giveaway that we are to expect such behaviors to surface during the church age—*before* the rapture. But after the church is taken out of the world, these things will become universal—*seemingly* normal—with no godly minority present to serve as a reminder of what a loving, enlightened society looks like.

One phrase in that passage jumps out at me: "having a form of godliness but denying its power." Even after the saints are gone, the "Christian" *religion* will still be around, loud and proud. Alas, I fear that the majority of people who consider themselves "Christians" (or at least who tabulate as "Christian" on the surveys) will be left behind—embodying the post-rapture profile of Yahshua's letter to Laodicea.

But wait a minute. These "wretched" people of Laodicea are part of the *church*, are they not? No, not yet, not in their present state described above—the Religion of Compromise. If they had been, they would have been raptured with Philadelphia. At what point, then, will the "Laodiceans" actually become part of the *ekklesia*—the called out assembly of Christ—and not some lukewarm religious fraud so disgusting that it makes Yahshua want to puke?

The answer is revealed in His advice to the left-behind throng: "I counsel you to buy from Me gold refined in the fire, that you may be rich; and white garments, that you may be clothed, that the shame of your nakedness may not be revealed; and anoint your eyes with eye salve, that you may see. As many as I love, I rebuke and chasten. Therefore be zealous and repent. Behold, I stand at the door and knock. If anyone hears My voice and opens the door, I will come in to him and dine with him, and he with Me." (Revelation 3:18-20) Those who will belatedly receive Yahshua's counsel are the *real* "Church of Laodicea"—the gentiles who come to faith (becoming part of the *ekklesia*—the called-out assembly of Christ) after the Philadelphians have been "kept out of the hour of trial." (Remember, Yahweh will be dealing with Israel separately at this point, as revealed in the Daniel 9:24-27 timeline. And as this whole series of Chronology Appendices has served to demonstrate, it looks like there will be a minimum—though unspecified—amount of elapsed time between the rapture and the commencement of the Great Unpleasantness.)

Yes, the Laodiceans have missed the great "catching-up," so the horrors of the Tribulation loom before them. But amazingly enough, *repentance is still an option*—even after the rapture. The "gold" the Laodiceans are advised to acquire represents immutable purity in Christ, though the "fire" indicates the crucible of the Tribulation: many of these newly-repentant saints will not survive the times— not physically, anyway. The "white garments" speak of imputed righteousness (the gift of God, rather than the good works of man, as soteriological strategy).

And the "eye salve" is what allows one to finally perceive the truth of God's word—the antidote to the spiritual blindness that had once afflicted them.

The promise attached to these permutations of repentance is positively awesome: **"To him who overcomes I will grant to sit with Me on My throne, as I also overcame and sat down with My Father on His throne."** (Revelation 3:21) Though tardy in repentance, their salvation is genuine, and their eternal fellowship with Christ guaranteed. They will not be "second class citizens" in the Kingdom. The "church" of Laodicea, then, will be comprised solely of those gentiles who repent—who come to faith *after the rapture*—who turn away from their lukewarm propensity for compromise with the world. Those among them who survive until the end of the Tribulation will comprise the "nations" that will, with restored Israel, populate (and repopulate) the Millennial earth.

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In Balaam's day, compromise took the form of implicitly acquiescing to pagan culture (and gods) by allowing oneself to be seduced by a Moabite hottie. Yahweh's very first Commandment (Exodus 20:2-3) had explicitly forbidden the worship of, or cooperation with, *any* deity (real or imagined) other than Him, for He was the one true God, and He had *proved* it. Nothing much had changed (except perhaps for the subtlety factor) when Christ's letters to the seven churches prophetically chronicled their (*our*) slow descent into compromise.

This process of systematically "negotiating with terrorists" (for that's what this really is) was slowed a bit with the Protestant Reformation, but it is my sad duty to report that Compromise is back with a vengeance in these Last Days. At first glance, it looks innocent, even admirable—the search for peace, unity, and common ground among Christians. It's called the Ecumenical Movement, something that has been afoot for over half a century now. It's a tricky subject, for whereas the Bible clearly calls for unity (e.g. Psalm 133), it constantly cautions against false teachers and creeping heresy. Remember: the disgusting "lukewarmness" of the proto-Laodiceans is the result of blending hot with cold, resulting in something that is neither—and it makes Christ want to puke.

*CompellingTruth.org* offers a balanced assessment, entitled "Should a Christian be involved in the ecumenical movement?" Good question.

"Ecumenism is a religious movement that seeks to unite all Christians and bring the various denominations together in mutual cooperation. The word comes from the Greek *oikoumene*, which means 'the whole inhabited world.' Ephesians 4:3 says that Christians should be 'eager to maintain the unity of the Spirit in the bond of peace.' John 17:21 notes Christ's desire 'that they may all be one, just as you, Father, are in me, and I in you.' So biblically, Christians *should* pursue unity with one another. But how does this apply to the contemporary ecumenical movement?

"The modern ecumenical movement often goes beyond uniting Christians and seeks to connect Protestants, Catholics, and non-Christian religions. Modern ecumenical leaders promote 'interfaith dialogue' with Mormons, Islamists, Hindus, Buddhists, Wiccans, Universalists, and a variety of New Age belief systems. Such efforts are at odds with the concept of Christian unity as presented in Scripture. While there is room for discussion with those outside of Christianity, to accept all religions as equally valid is to deny the uniqueness of Jesus and the Christian faith.

"Some partnerships are not really an issue. Believers from almost any background can cooperate to fight poverty, for example, or to take a pro-life stand. However, in other areas partnerships can send the wrong message or contradict a church's beliefs. For example, recent attempts to bridge differences between Protestant and Catholic theology have included joint statements on salvation and the inspiration of Scripture. To sign a statement that compromises core biblical teaching is dangerous. Doctrines such as salvation by grace alone (Ephesians 2:8-9) and the authority of Scripture (1 Timothy 3:16-17) should not be compromised for the sake of a synthetic unity.

"A desire for ecumenicalism cannot ignore the Bible's commands to maintain the purity of the gospel (Galatians 1:6-9; 2 Peter 2:1; Jude 1:3-4). Christians must **'test everything; hold fast what is good'** (1 Thessalonians 5:21). It's significant that, immediately following Paul's anathema on apostates, he asks, **'For am I now seeking the approval of man, or of God? Or am I trying to please man?'** (Galatians 1:10). At the heart of modern ecumenicalism is a desire to please men instead of God.

"On a positive note, a denomination is itself 'ecumenical' in the sense that it consists of many churches working together with common beliefs. This coalition shares resources, serves local churches, and reaches others in world missions. Negatively, denominational ties that are too strong or centralized can lessen the ability of a local church to follow God's will for its members.

"Christians are called to unity, but not at all costs. Doctrine is paramount, especially when it concerns the person and work of Christ. Modern ecumenical efforts are often all too ready to part with biblical teachings. Therefore, we must take care when evaluating potential partnerships. If unity can be had without compromising fundamental Christian belief, then unity should be pursued. As 17th-century Lutheran theologian Rupertus Meldenius said, 'In essentials unity, in non-essentials liberty, in all things charity."" Moses was a bit more straightforward: "If your brother, the son of your mother, your son or your daughter, the wife of your bosom, or your friend who is as your own soul, secretly entices you, saying, 'Let us go and serve other gods,' which you have not known, neither you nor your fathers, of the gods of the people which are all around you, near to you or far off from you, from one end of the earth to the other end of the earth, you shall not consent to him or listen to him, nor shall your eye pity him, nor shall you spare him or conceal him; but you shall surely kill him.... So all Israel shall hear and fear, and not again do such wickedness as this among you." (Deuteronomy 13:6-11) And as long as we're going back to the Torah for advice, note that the dietary rules of Leviticus 11, in addition to keeping us healthy, were intended to teach us to *be discerning* about what to put into our bodies—and souls.

A blind man can see where the "Ecumenical Movement" will lead if not anchored in Yahweh's scriptures. The goal (being spearheaded by the Roman Catholic Church) is a one-world religion—the same sort of "new world order" solution advocated in politics as a way to stamp out anarchy and dissent. (Free will is *so* untidy in the hands of individual humans, isn't it?) Allow me to quote from a couple of articles by the prolific Michael Snyder describing recent developments toward this goal.

The first article was published on *TheTruthWins.com* (February 23, 2014). It was entitled "Pope Francis and the Emerging One World Religion." Snyder asks, "Is Pope Francis taking steps that are laying the groundwork for the emergence of a one world religion?

"We live at a time when globalization is advancing rapidly. The global economy is more integrated than it has ever been before, and with each passing year new economic treaties tie us even more closely together. And 'global governance' (as the elite like to call it) is also steadily gaining ground. Through a whole host of global institutions such as the United Nations, the World Bank, the IMF, and the Bank for International Settlements, global governments are working together to a degree that is unprecedented. Well, what about religion? Is there evidence that we are also witnessing the globalization of religion? Yes, there is. In fact, it appears that Pope Francis intends to lead the way.

"Since he has been Pope, Francis has expressed a desire for unity with the Eastern Orthodox, the Anglicans, and many other major Protestant denominations. But more than a few eyebrows were raised when he recently sent a video message to Kenneth Copeland and his congregation. At the time that the video message was played to the congregation, one speaker declared that 'Luther's protest is over'....

"The Catholic and Charismatic Renewal is the hope of the Church,' exclaims Anglican Episcopal Bishop Tony Palmer, before a group of cheering followers at the Kenneth Copeland Ministries. Palmer said those words are from the Vatican. Before playing the video message from Pope Francis to Kenneth Copeland, Palmer told the crowd, 'When my wife saw that she could be Catholic, and Charismatic, and Evangelical, and Pentecostal, and it was absolutely accepted in the Catholic Church, she said that she would like to reconnect her roots with the Catholic culture. So she did.' The crowd cheered, as he continued, 'Brothers and sisters, Luther's protest is over. Is yours?'

"Even Kenneth Copeland finds this development incredible: Said Copeland, 'Heaven is thrilled over this.... You know what is so thrilling to me? When we went into the ministry 47 years ago, this was impossible." Heaven is *"thrilled"*? According to Revelation 3:16, heaven is *nauseated*. The tepid surrender of the fundamentals of the Christian faith to the god of the lowest common denominator may not have been possible back in the 1960s, but it is a disgusting, stomach churning reality today.

So Snyder asks, "Is Luther's protest really over? During the Council of Trent, the Catholics condemned to hell anyone who believes in salvation through faith in Jesus alone. This is a direct quote from the Council of Trent: 'If any one saith, that by faith alone the impious is justified; in such wise as to mean that nothing else is required to co-operate in order to the obtaining the grace of Justification, and that it is not in any way necessary, that he be prepared and disposed by the movement of his own will; let him be anathema [that is, accursed].'

"The Catholics have never renounced that stand. Instead, it has been reaffirmed many times over the years. If Pope Francis really did want to reach out to Protestants, he should start by reversing the Council of Trent on this. As it stands, it is official Catholic doctrine that all Protestants are anathema. But apparently that is not going to stop many Protestants from reuniting with Rome and declaring Francis to be 'their Pope.'

"Meanwhile, Pope Francis has also been aggressively courting *Muslims*. The following quote from Pope Francis comes from remarks that he made during his very first ecumenical meeting: 'I then greet and cordially thank you all, dear friends belonging to other religious traditions; first of all the Muslims, who worship the one God, living and merciful, and call upon Him in prayer, and all of you. I really appreciate your presence: in it I see a tangible sign of the will to grow in mutual esteem and cooperation for the common good of humanity. The Catholic Church is aware of the importance of promoting friendship and respect between men and women of different religious traditions....

"Did you catch that? Apparently Pope Francis believes that Catholics and Muslims worship the same God.

"More recently, Francis made the following statement about Muslims: 'We must never forget that they profess to hold the faith of Abraham, and together

with us they adore the one, merciful God, who will judge humanity on the last day.'

#### "Wow.

"By making this statement, Pope Francis is rejecting another of the most fundamental doctrines of the Christian faith. You see, Christians believe that Jesus Christ is God." That is, Jesus (Yahshua) is the human manifestation of Yahweh. They are the same person, though different in form. "Muslims hate this doctrine and say that there is no god but Allah. So how in the world can Christians and Muslims worship the same God? The only way that you could say this is if you deny the deity of Jesus Christ.

"Of course when it comes to other religions, Francis is not just reaching out to the Muslims. During the same ecumenical meeting that I referenced above, he made it a point to say that he feels 'close' to those that belong to any religious tradition: 'In this, we feel close even to all those men and women who, whilst not recognizing themselves belonging to any religious tradition, feel themselves nevertheless to be in search of truth, goodness and beauty, this truth, goodness and beauty of God, and who are our precious allies in efforts to defend the dignity of man, in building a peaceful coexistence among peoples and in guarding Creation carefully." If you've been paying attention, you'll recognize most of that rhetoric as coming right out of the secular humanist playbook.

"And Francis really raised some eyebrows when he made the following statement about *atheists*: 'The Lord created us in His image and likeness, and we are the image of the Lord, and He does good, and all of us have this commandment at heart: do good and do not do evil. All of us. "But, Father, this is not Catholic! He cannot do good." Yes, he can. The Lord has redeemed all of us, *all of us*, with the Blood of Christ: *all of us*, not just Catholics. Everyone! "Father, the atheists?" Even the atheists. Everyone! We must meet one another doing good. "But I don't believe, Father, I am an atheist!" But do good: we will meet one another there.'

"There was a lot of debate about what Francis meant by that, and the Vatican issued a statement declaring that Catholic doctrine on these matters had not changed, but without a doubt a lot of people were troubled by this." It's quite simple, really: Pope Francis has declared himself to be smarter than God. While it's true that Christ died for the sins of the whole world—atheists included—the fact remains that one must *choose* to receive His grace, allowing the atoning blood of Yahshua to cover our sins, in order to be saved. He cannot work his way into God's favor—especially if he doesn't believe God exists (see Hebrews 11:6). As Yahshua said, the work of God is to *believe* in Him whom He sent—that is, Himself. Francis insists that "the Lord has redeemed all of us," but the fact stands: many remain unredeemed.

"In addition, a lot of people were really troubled when the Vatican offered 'indulgences' to those that would follow Pope Francis on Twitter. The following is an excerpt from an article that appeared in the *Telegraph*: 'Salvation—or at least a shorter stay in Purgatory—might now be only a tweet away with news that Pope Francis is to offer "indulgences"—remissions for temporary punishment—to the faithful who follow him on the social media site...." If you'll recall, the sale of papal indulgences was the practice that finally "broke the camel's back," precipitating the Protestation Reformation. But hey, at least the price has dropped.

"So what does Pope Francis actually believe? That is a very good question. His beliefs do not appear to be very consistent at all. He just seems to have an overwhelming desire to 'unite' with everyone out there who has any kind of religious faith. But we do know one kind of people that he does *not* like. He does not like 'ideological Christians' that take their faith very seriously: 'In ideologies there is not Jesus: in his tenderness, his love, his meekness. And ideologies are rigid, always. Of every sign: rigid. And when a Christian becomes a disciple of the ideology, he has lost the faith: he is no longer a disciple of Jesus, he is a disciple of this attitude of thought... For this reason Jesus said to them: "You have taken away the key of knowledge."""

Just for the record, the Pope is lying: Yahshua said this concerning the scribes and Pharisees, who had perverted the Torah that foretold His coming—*not* about the Christians who believed in Him without reservation and without compromise. Catholicism, with its emphasis on good works—*not* fundamentalist, gracedependent Christianity—is heir to the heresy of the Pharisees. Francis continues: "The knowledge of Jesus is transformed into an ideological and also moralistic knowledge, because these close the door with many requirements. The faith becomes ideology and ideology frightens, ideology chases away the people, distances, distances the people and distances of the Church of the people. But it is a serious illness, this of ideological Christians. It is an illness, but it is not new, eh?" Yes, receiving and defending what God actually said and did is frightening, repulsive, and sick—or so it seems to a lost and dying world.

"So what is going to come of all this? It will be very interesting to watch. It is also interesting to note that there is a 900-year-old prophecy that seems to indicate that Pope Francis could be the last Pope. If that prophecy is accurate, then we could very well be living at a time when we will see the emergence of a one world religion. Just a few short decades ago, a one world religion would have been absolutely unthinkable. But now the pieces are starting to come together."

A *one world religion*? It's just one more factor—out of dozens of them—that should compel us to ponder the course of events converging on the fourth decade of the twenty-first century. You can't say I didn't warn you.

In *EndOfTheAmericanDream.com* (September 8th, 2014) Michael Snyder presented another article on the subject, this one entitled, "Pope Francis and Shimon Peres Discuss the Establishment of a 'United Nations of Religions." He reports on a meeting between the Pope and the former Israeli President: "The focus of this discussion was a proposal by Peres to establish a 'United Nations of Religions....' Every idea has to start somewhere. If Pope Francis does ultimately decide to actively push for such a thing, could we eventually see a single global body that claims to represent all of the religions of the world? ...

"Why does Peres want a 'United Nations of Religions'? According to the *Jerusalem Post*, it is because he believes that such a body would have the best chance of preventing war and violence in the world... In an interview with the Catholic Magazine *Famiglia Cristiana*, Peres called on Francis to leverage his respect to create an interfaith organization to curb religious violence. 'What we need is an organization of United Religions... as the best way to combat terrorists who kill in the name of faith,' Peres said. 'What we need is an unquestionable moral authority who says out loud, "No, God does not want this and does not allow it...."""

They're trying to *"curb religious violence"*? Remarkable, since both religions who are the focus of this "peace initiative" have oceans of blood on their hands throughout their histories—as many as 60 million souls at the hands of Catholics, and 270 million or so due to Muslim jihad—and Jews like Peres are always a prime target. (To put things in perspective, the religion of atheism was responsible for as many as 250 million deaths in the twentieth century alone.)

Be that as it may, "Such an organization would fit in very well with what the Pope has been trying to do his entire tenure. He has been doing just about all that he can to build bridges to other religions. For example, earlier this year the Pope authorized Islamic prayers and readings from the Qur'an at the Vatican for the first time ever...."

Gee, what was it the Apostle Paul said? "Do not be unequally yoked together with unbelievers. For what fellowship has righteousness with lawlessness? And what communion has light with darkness? And what accord has Christ with Belial? Or what part has a believer with an unbeliever? And what agreement has the temple of God with idols?" (II Corinthians 6:14-16) Does the Pope not understand the most basic tenet of the Christian faith—holiness, being set apart from the enemies of God? Does he not comprehend the fact that Muslims are sworn to destroy Christianity (and every religion other than Islam), and are instructed to lie about their peaceful intentions until it is too late to do anything about their plans for conquest?

Of course, Pope Francis has been reaching out to Protestants, too. Snyder writes, "Two controversial TV preachers recently met Pope Francis in an effort to work toward tearing down the 'walls of division' between Catholics and Protestants. Kenneth Copeland and James Robison are two religious leaders in northeast Texas known for drawing huge crowds to their services and events, and who were a part of leading the group identifying as a 'delegation of Evangelical Christian leaders' in its meeting with the Roman Catholic pontiff late last month.

"In addition, earlier this year the Pope even met with television minister Joel Osteen.... Osteen was part of a delegation organized by the International Foundation in an effort to encourage interfaith relations and ecumenicism. Utah Senator Mike Lee (R), a Mormon, Gayle Beebe, the president of the interdenominational Westmont College in California, and Pastor Tim Timmons, founder of South Coast Community Church, also in California, were among those who greeted the pope, along with Osteen. 'I just felt very honored and very humbled,' Osteen told local television station Click 2 Houston. 'It was amazing. And even to go back into that part of the Vatican—there's so much history there, the place that they took us through. You feel that deep respect and reverence for God.''' I think I just threw up in my mouth a little bit. "And this is not something that just started recently. Pope Francis has been pushing an ecumenical agenda very hard from the very first moments of his papacy."

"But there is one type of Christian that Pope Francis does not have anything positive to say about. Pope Francis says that there is not any room for "fundamentalism" in Christianity.... Following his first visit to the Middle East as pope last month, the pontiff criticized fundamentalism in Christianity, Islam, and Judaism as a form of violence. 'A fundamentalist group, even if it kills no one, even it strikes no one, is *violent*. The mental structure of fundamentalism is violence in the name of God.'

"But exactly what is 'fundamentalism'? The following is the definition that Google gives when you do a search: 'a form of a religion, especially Islam or Protestant Christianity, that upholds belief in the strict, literal interpretation of scripture.' So is Pope Francis rejecting those Christians that believe in a strict, literal interpretation of the Bible?" Yes, Michael, as a matter of fact, he is. After all, he is the world leader of the Religion of Compromise—the spokesman for the pre-repentant church of Laodicea.

It bears repeating: the character of "fundamentalism" depends on what those fundamentals are. They could be a bad or good, false or true, violent or benign. Granted, people with firm convictions and unshakable standards can make wishywashy lukewarm compromisers uncomfortable. But that's not the same thing as being "violent," as Pope Francis charges. Yes, Islamic fundamentalists *really believe* that their god Allah will reward them with perennial pleasures in paradise if they kill and plunder in his name, and will punish them with hell fire if they do not. But *Christian* fundamentalists really believe that our marching orders are to love Yahweh and our fellow men—something that requires us to pursue the great

commission: "Go and make disciples of all the nations, baptizing them in the name of the Father and of the Son and of the Holy Spirit, teaching them to observe all things that I have commanded you." (Matthew 28:19-20) We believe that it is not a loving act to allow the lost to die in their sins if it is in our power to introduce them to the Lord of Life, the Prince of Peace. Of course, we also believe that you can't drag people kicking and screaming to the throne of grace—free will and religious compulsion are polar opposites.

## Chrislam

That fact—the utter incompatibility of Yahweh's gift of free will with Satan's tactics of deception, compulsion, and bondage—makes any attempt to blend Christianity with Islam the height of folly. And yet, that is precisely what a growing Last Days trend is attempting to do. It's called Chrislam, and it's the dumbest thing in the history of mankind. This is not like trying to mix oil and water; it's more like trying to blend air and stone, or life and death.

I'm referring, of course, to the *fundamentalist* permutations of Christianity and Islam—in which people actually believe and live by their scriptures. But if you're into compromise, if you're willing to ignore your God (whoever he is) and instead make up your religion out of wishful thinking and unicorn poo, then such a thing as Chrislam is not only possible, it's practically inevitable. Just know up front that *both* Yahweh and Allah are "on record" as being adamantly opposed to this harebrained idea.

*GotQuestions.org* helps us define our terms: "Chrislam is an attempt to syncretize Christianity with Islam. While it began in Nigeria in the 1980s, Chrislamic ideas have spread throughout much of the world. The essential concept of Chrislam is that Christianity and Islam are compatible, that one can be a Christian and a Muslim at the same time. Chrislam is not an actual religion of its own, but a blurring of the differences and distinctions between Christianity and Islam.

"Advocates of Chrislam point to facts such as Jesus being mentioned 25 times in the Qur'an, or Christianity and Islam having similar teachings on morals and ethics, or the need for the two largest monotheistic religions to unite to fight against the rise of atheism and alternative spirituality. Chrislam is viewed by some as the solution for the ongoing conflict between the Western world, which is predominantly Christian, and the Middle East, which is predominantly Muslim.

"While it is undeniable that there are many similarities between Christianity and Islam (and Judaism, for that matter), Chrislam ultimately fails because Christianity and Islam are diametrically opposed on the most important of issues—the identity of Jesus Christ. True Christianity declares Jesus to be God incarnate. For Christians, the deity of Christ is a non-negotiable, for without His deity, Jesus' death on the cross would not have been sufficient to be the atoning sacrifice for the sins of the entire world (1 John 2:2).

"Islam adamantly rejects the deity of Christ. The Qur'an declares the idea that Jesus is God to be blasphemy (5:17). Belief in the deity of Christ is considered *shirk* ("filth") to Muslims. Further, Islam denies the death of Christ on the cross (Qur'an 4:157-158). The most crucial doctrine of the Christian faith is rejected in Islam. As a result, the two religions are absolutely not compatible, making Christam a concept both Christians and Muslims should reject."

Chrislam, in short, is the ultimate compromise. It requires Christians to abandon the core tenets of Christianity, and for Muslims to do the same—except for one thing. Remember the Islamic ploy of *Taqiyya* (and half a dozen other forms of tactical deception for the purposes of spreading Islam, listed above). When a Muslim purports to be participating in Chrislam, there's no way to be sure it's not merely a ruse: they are *commanded* to lie to you to gain an advantage, so that Islam may triumph in the end.

An article posted on *Prophecy News Watch* (March 20, 2014, by Christine Pasciuti) entitled "Christian Leaders Continue to Endorse Chrislam" informs us as to just how bad it has gotten:

"A number of Christian leaders today are attempting to bridge the gap between Muslims and Christians. While perhaps well intentioned, the foundation of this new mantra, often called Chrislam, is that 'we all worship the same God."" No one who is familiar with *either* Yahweh or Allah, however, could make such a claim with a straight face. "At the heart of this movement and perhaps the most dangerous issue is that these Christian leaders suggest that because we use similar terms such as 'God' and 'Jesus' there is a form of shared belief." Of course. Satan knows that a good counterfeit has to look something like the real thing.

"What we mean by the words we use matters, and when no one defines the terms we are using, deception can slip in (which is why lawyers will fill page after page of small print defining the terms in a contract). Whether intentional or not, many Christian leaders are leading their followers into believing Chrislam is acceptable. Some unfortunate examples:

(1) "Recently, Brian Houston of Hillsong Church in Australia, addressed his congregation with these words, 'Do you know—take it all the way back into the Old Testament and the Muslim and you—we actually serve the same God. Allah to a Muslim, to us Abba Father God. And of course through history, those views have changed greatly. But let's make sure that we view God through the eyes of Jesus, the grace of the Lord Jesus Christ, the beauty of a Savior, the loving open inclusive arms of a loving God."" Therein lies one of the dangers of substituting

the Creator's self-revealed name, Yahweh, with anemic titles like God, or the Lord, or Father—even if we mean no disrespect. Allah is not Yahweh.

(2) "At President Obama's inaugural invocation in 2009, Pastor of Southern California's Saddleback Church, Rick Warren, cited several names for Jesus when leading the audience into the Lord's Prayer: 'I humbly ask this in the name of the one who changed my life, Yeshua, Isa, Jesus [Spanish pronunciation—"Heysoos"], Jesus, who taught us to pray....' While the context of Rick Warren's comments suggest he was attempting to bridge the gap of different names used for Jesus, his efforts show how easy it is for our words to cause confusion. To the Muslim, the 'Isa' of the Qur'an is very different than the Jesus of the Bible. The Qur'an's Isa is not an historical figure. His identity and role as a prophet of Islam is based solely on supposed revelations to Muhammad over half a millennium after the Jesus of history lived and died." Actually, it may be worse than that: the "Isa" of Muslim lore could be the same name as Esau, the brother of Jacob who despised his birthright—the *only* man in the Bible whom God said he "hated."

"Islam's Qur'an does not portray the divinity of Jesus Christ, nor claim Him to be the only-begotten Son of God—the Messiah, God in human flesh—nor state that Jesus died on the cross for our sins and resurrected from the dead. Islam denies the true gospel of Christianity—the core reason Jesus came to earth. This fundamental gap between Christians and Muslims cannot and should not be bridged or smoothed over with a watered-down doctrine for the sake of 'brotherly love." As I said, it is not a loving act to allow your fellow man to perish in ignorance because you want him to "like you."

(3) "In 2010, Larry Reimer, a minister of the United Church of Gainesville, FL, in response to a local Qur'an burning, chose to read scripture from the Qur'an as part of his worship services, adding, 'Christianity, Judaism, and Islam are all part of the Abrahamic tree of faith. We all believe in the same God, and in many aspects we are all trying to accomplish the same goals...." Yes, if your "goal" is to lead people *away from* Christ into apostasy and error.

(4) "While housing the offices for 'Christians and Muslims for Peace,' Robert Schuller, pastor of Crystal Cathedral, began the movement toward softening the well-known words of Jesus in John 14:6, 'I am the way, the truth, and the life. No one comes to the Father except through Me.' Schuller told an Imam of the Muslim American Society that 'if he came back in 100 years and found his descendants Muslims, it wouldn't bother him....'

(5) "Another leader in the Emerging Church movement, Dr. Tony Campolo, says he is not convinced that Jesus lives only in Christians, reasoning that an Islamic 'brother' who has fed the hungry and clothed the naked clearly has a personal relationship with Christ, only he doesn't know it." The "indwelling Spirit" requirement of John 3 would beg to differ.

(6) "A few years ago, Memorial Drive Presbyterian Church in Houston joined with Christian communities in Atlanta, Seattle, and Detroit to create a series of sermons designed to promote an ecumenical reconciliation between Christianity and Islam. Sunday School lessons on the same theme would center on the inspired teachings of the Prophet Mohammad, and Qur'ans and Bibles would be placed side by side in the church pews." In other news, the Presbyterian Church has partnered with a group of "Palestinian Liberation theologians" to rewrite the Bible—removing all references to Israel and the Jews and re-casting Jesus as a Palestinian Arab. I don't even know how to respond to that without using profanity, so I guess we'll just move on.

Pasciuti concludes, "Ironically, a side by side comparison of the Bible and the Qur'an would show two faiths that are the exact opposite. The Jesus of the gospels is the base upon which Christianity developed. By Islamicizing him, and making of him a Muslim prophet who preached the Qur'an, Islam destroys Christianity and takes over all its history. It does the same to Judaism."

A word of caution: Ms. Pasciuti writes here (probably without meaning to) as if Islam, Christianity, and Judaism were "competing religions." This might be true if "Christianity" were actually nothing more than the Religion of Compromise about which we've been speaking. But real Christianity *isn't* "a religion that was based on the life of Jesus." It's "history" and "development" has nothing to do with its true nature (except perhaps as a warning about how easy it is to go astray). It is, rather, the relationship that exists between Yahshua and those of us who choose to be born from above in His Holy Spirit, reciprocating the love of Yahweh. Islam, meanwhile, is merely one of a thousand pitiful ways to define "being lost."

It's really depressing to read of so many influential "Christians" falling into the pit of Chrislam. But it's not as if we hadn't been warned about them: **"There will be false teachers among you, who will secretly bring in destructive heresies, even denying the Lord who bought them, and bring on themselves swift destruction. And many will follow their destructive ways, because of whom the way of truth will be blasphemed."** (II Peter 2:1-2) I suppose it would be convenient (or at least tidy) if these "destructive heresies" in "Christianity" were confined to the Roman Catholic Church, but alas, that is not the case—they're all over the place. Notably, the Presbyterian Church has in recent years come out strongly as being both pro-Palestinian and pro-homosexual (which is a bit schizophrenic, considering Islam's intense loathing of homosexuality). But Episcopalians, Methodists, Lutherans, and others are falling all over each other competing with Catholics and Presbyterians for the title of "Apostate of the Year." Compromise with evil is evil, wherever you find it. The "flip-side" of the Chrislam coin is a negative attitude toward the Jews and especially Israel—i.e., the Jewish political state. If one is willing to "seek common ground" with Islam, the divisive subject of Israel's welfare (okay, its very right to exist) will sooner or later raise its ugly head. As I did my Biblical research for *The End of the Beginning*, it became all too obvious that Yahweh has not "given up" on the Jews—far from it. Although I didn't do a verse-by-verse tally, I got the distinct impression that God's promises of the eventual restoration and redemption of Israel—the literal, physical nation, land, and people outnumbered those of any other prophetic theme by a factor of at least ten. They're everywhere you look.

But if you want to get cozy with Islam in your quest for world peace, lollipops, and rainbows, you're going to be pressured to side with the "Palestinian" cause. Mind you, there is no such thing (racially) as a "Palestinian." The word (today, at least) simply describes an Arab Muslim who wants to live in the land Yahweh gave to Israel. (Historically, it meant anyone living in "Palestine," which was the name the Roman Emperor Hadrian gave the Land after his conquest of Bar Kochba and Rabbi Akiba in 135 AD, in an effort to sever the Jews' emotional attachment to the Land. So until 1948, anybody living there, even Jews, were rightly known as "Palestinians.")

We've seen how the prophesied Muslim Mahdi (the Gog of Ezekiel 38) will be forced to "settle in Jerusalem" if he hopes to be taken seriously as the new Islamic caliph. It's not optional. Thus Yahweh's prophet makes clear what will happen to those who try to conquer the Holy City: **"Behold, I will make Jerusalem a cup of drunkenness to all the surrounding peoples, when they lay siege against Judah and Jerusalem.** And it shall happen in that day that I will make Jerusalem a very heavy stone for **all peoples; all who would heave it away will surely be cut in pieces, though all nations of the earth are gathered against it.**" (Zechariah 12:2-3) The nations will "gather against" Jerusalem twice during the Tribulation, first during the war of Magog, and later at Armageddon—the final "battle." Both times, those who try to take the city will be "cut in pieces." The point I want to make is that if a "Christian" compromises with Islam, he is *by definition* "laying siege against Judah and Jerusalem." It's the dumbest thing one could possibly do.

# The Religion of Hope

We have thus far explored four rather evenly matched "belief systems," each of which comprises 21-22% of the world's population today: the Religions of Despair, of Denial, of Death, and of Compromise. Together, these comprise the

"wide gate and broad way that leads to destruction" warned of by Yahshua. His instruction was that we must "Enter through the narrow gate; for the gate is wide and the way is broad that leads to destruction, and there are many who enter through it. For the gate is small and the way is narrow that leads to life, and there are few who find it." (Matthew 7:13-14)

We should not be shocked or dismayed, then, to find His children a minority in this world. (Okay, maybe a little depressed.) We "fundamentalists" (the segment of Christianity that Pope Francis is so adamantly opposed to) are part of the "left-over" 14% demographic segment. How big a part, I couldn't say—we share the territory with a plethora of cults and sects, folk religions, indigenous faiths, neo-pagan and new-age cults, up to and including out and out Satanism as well as one tiny religion that is inextricably linked with most of its adherents' *genetic* identity: Judaism. (That is, most people practicing Judaism are Jews—or more correctly, Israelites—descendants of Abraham, Isaac, and Israel—though not all biological Jews practice Judaism. A fair number are functional atheists.)

Although most Christians and most Jews practice religious traditions that are worlds apart, I have no choice but to group them together as one because they are both based on the same scriptural foundation, and they both purport to worship the same God, whose self-revealed name is Yahweh. The primary bone of contention is the identity of the Messiah. Indeed, I see the Judeo-Christian belief system as a composite entity of sorts. That is, *real* Christians support and pray for Israel (both as a genetic and a political entity), and religious Jews in these Last Days somehow sense that we are the only real allies they have in this world.

In Christianity and Judaism, as with Islam, there is a vast difference between someone who merely goes through the motions, observing their religious traditions and customs but not really taking their scriptures to heart, and one who awakens to the reality of what their God requires of them—which can be a very different thing. Judeo-Christians who choose to believe and trust their God (rather than self-appointed religious professionals, pointless traditions, or politically correct "causes") will find that they have, in their hearts, left the Religion of Compromise in favor of the Religion of Hope.

At their core, both Christianity and Judaism have only two rules: love God and love your fellow man. (Or is it, love God and *demonstrate this love* by loving your fellow man?—see I John 4:7-11.) Yahshua identified for us the greatest commandments of the Torah, saying, "You shall love Yahweh your God with all your heart, with all your soul, and with all your mind.' This is the first and great commandment. And the second is like it: 'You shall love your neighbor as yourself.' On these two commandments hang all the Law and the Prophets." (Matthew 22:37-40, cf. Deuteronomy 6:5 and Leviticus 19:18) The word translated "love" here is the Greek *agapaó*, the verb form of the familiar noun *agapé* (moral preference: love, benevolence, good will, esteem. *Agapaó* means: "to have love for someone or something, based on sincere appreciation and high regard; to love, to regard with affection, loving concern"—*Louw & Nida*). We are being told to *prefer and appreciate* Yahweh enthusiastically (which would include *trusting* Him enough to take His advice—a.k.a. obedience), and to seek our neighbors' well-being as much as (and in the same way as) we do our own.

Religious rituals ordained by Yahweh (whether commanded of Israel, such things as circumcision, tithes, and animal sacrifices, or of the Church, such rites as water baptism or the Lord's Supper) are *always* instituted to symbolize and/or memorialize God's expression of love for us. Anything we add to them— manmade traditions, no matter how well-meaning or innocent they may seem— will obfuscate or dilute God's message. During the two thousand years since Yahshua's advent, we (both Christians and Jews) muddied the waters quite a bit, I'm afraid. We added traditions, rules, doctrines, and customs that serve only to insulate us from the God who wants nothing more than to share an intimate, personal, *loving* relationship with His creation—us. And in the process, we became apostate, lukewarm, and unresponsive—not so very different from the Muslims who lost track of Allah's (or is that *Satan's*) bloodthirsty Qur'anic instructions for all those centuries.

But what happens when a Christian awakens from his liturgical slumber and takes a spiritual weed-whacker to the overgrowth of pointless tradition that had choked his faith like so much kudzu invading once-pristine woodlands? What happens when his cold, dead religion gets replaced with a warm and living *relationship* with His God and Savior? It's precisely the *opposite* of what a Muslim experiences when he awakens from *his* religious torpor. Remember what I wrote about followers of Islam? "The closer a Muslim adheres to the teachings of his religion, the worse a human being he will be: frustrated, miserable, unfulfilled, hateful, selfish, and potentially lethal to anyone he meets."

The opposite is true of Christians. The closer a Christian adheres to the teachings of His God, the *better* a human being he will be: satisfied, content, fulfilled, loving, selfless, and potentially a blessing to anyone he meets. (Sadly, I fear I'm describing but a small minority of us.) I readily admit that my definition of "good" and "bad" are based on my Judeo-Christian worldview, but you don't have to be a Christian to find love preferable to hate, life better than death, security more desirable than fear, and peace superior to war. These attitudes are hard-wired into the common human psyche. To deny them, one must turn his back upon his own humanity.

The awakened Christian starts to love others with a whole heart. He (or she) begins to crave righteousness, to ache and mourn because of the sinful condition of the world, to cry out to God because of the misery and injustice he sees, and to

subsequently invest himself in being part of the solution, not part of the problem. He comes to the uncomfortable realization that tolerating sin (in himself or others) is not a loving thing to do—that the only loving course of action is to admit it, confront it, and point it out for what it is—the path to destruction. Call it "being judgmental" if you will, but if he sees a drowning man, he acknowledges that the water can kill him, so he throws him a life preserver. Alas for the one who refuses to grasp it.

And what about Jews? The closer *they* adhere to the teachings of their God (as revealed in the Torah, Psalms, and Prophets, not necessarily the Talmud) the more likely they are to become wide-awake *Christians*—i.e., believers in the same Messiah their Christian counterparts know and revere—for Yahshua is revealed in every symbol, every ritual, and every prophetic utterance in the Hebrew Scriptures. The fact is, Christianity and Judaism have no business being separate religions. For that matter, *real* Christianity isn't a religion at all (in the sense that it represents a method by which men may reach out to God). It's "merely" a descriptive term for the relationship that exists between believers and their God. In real Christianity, it's Yahweh who does the reaching out—and we who gratefully allow ourselves to be found.

Perhaps most importantly, of all these faiths we've discussed, *only* Judeo-Christianity offers a plausible solution for sin—the "falling short" of God's perfect standard of righteousness. That solution, in a nutshell, is that only innocence can atone for (i.e., cover) guilt. "The mystery of 'atoning' for our offenses, or sins, against God and other persons is addressed by the Hebrew verb *kapar*, 'to make atonement,' 'to cover over.' The verb may come from an original root meaning 'to wipe away' or 'to cover.' All of these meanings describe in different ways how God deals with our sins, for only His Son can truly 'make atonement' for our sin." (*Holman*) We'll see why in a moment. The *Lexham Theological Wordbook* further explains that *kapar* means "To atone, make atonement, cover, appease, expiate. The verb primarily describes the action of covering over iniquity.... Atonement results in forgiveness, consecration, cleanness, appeasement of divine wrath, and removal of sin or iniquity."

The problem is that guilt separates us from God (in whom is life), so one way or another, the penalty of sin—actually, its *natural consequence*, its *wages*, as Paul put it—is death. The "trick" is somehow obtaining atonement for one's sins without relinquishing one's life in the process, for dead people cannot enjoy fellowship with God (or do anything else, for that matter). Innocent blood must be shed, but since the fall of Adam, *none of us* has been found innocent before God through his own merit or performance.

So the Hebrew Scriptures describe a process whereby an innocent clean *animal* may be sacrificed as a substitute, to temporarily atone for the sins of guilty

people. (Animals are deemed innocent because they have no free will and no sin nature. What they do, no matter how destructive or inconvenient to us, has no moral ramifications.) But people (who *do* have free will) cannot atone for their own sins without dying, because those very sins *define them* as being guilty. Moreover, death tends to defeat the whole purpose of atonement—the reconciliation of one living being to another through the covering of sin.

Anyone who is cognizant of his own sins before God, then, is (as they say in theological parlance) *screwed*. First, we're faced with the unassailable fact that we're going to need a whole lot more bulls, lambs, and goats—given the depths of our sins and the temporary nature of the Old Testament remedy for them. But beyond that, there's the little problem of no longer having a priesthood or a temple in which to offer up our sacrifices. For that matter, the Ark of the Covenant—necessary for the rites of the Day of Atonement—has been missing and unavailable for service since before the Babylonians took Jerusalem in 586 B.C. So as far as the Jews know, they're *still* screwed—saddled with a scripturally mandated procedure for the atonement of sins, but no way to implement it. Innocent blood is required if our sins are to be atoned without our own deaths, but there is no longer a mechanism for making such sacrifices.

#### Or is there?

Christians, of course, know the answer to the riddle of permanent atonement without personal death. Instead of an endless string of lambs and goats—which in truth had been introduced only as a prophetic harbinger—Yahweh did the most counterintuitive thing imaginable: He manifested *Himself* as a human being, living a sinless life among us. And then, qualified by His proven innocence, He offered *Himself* up as a perfect sacrifice for the sins of mankind. As with the Levitical rites, it is our trust in the efficacy of the sacrifice that covers our sins and reconciles us to Yahweh. (The Jews, as a nation, haven't yet awakened to the fact that *their* long-expected Messiah is the *same person* as the Christians' Christ—the One who fulfilled the promise of the Torah's sacrifices. But they will.) The fact that our salvation cost us nothing but our pride (because, let's face it, we had nothing of value to contribute) is a testament to the unfathomable love of Yahweh.

And what is the "payoff" of one's salvation in Christianity? It is eternal life in fellowship with God Himself. We are to be given immortal, spiritual bodies that—unlike our present mortal shells—are designed to be compatible with the undiminished glory of God. Reconciliation with Yahweh is the whole point. Christianity is unique in this respect: our idea of "heaven" is to dwell at peace with, and in the very presence of, our God. We look forward to sharing this relationship with Yahweh, through His Messiah, that we have chosen in this mortal life—a relationship of mutual love, of personal friendship, and on our part,

of reverence and unmitigated awe—*forever*. As strange as it may seem to devotees of other faiths, our God actually *likes* us.

How does one attain this blessed state? By becoming a "child of God." This is defined in the Tanach as "keeping Yahweh's commandments" and in the New Testament as being born of God's Spirit through belief in (i.e., reliance upon) the saving grace provided by Yahshua's sacrifice. There is no discrepancy here. The two "methods" (if you comprehend Yahweh's symbols) are exactly the same thing. Boiled down to one concept, it is *trust in Yahweh's provision*. As Yahshua said, **"This is the work of God, that you believe in Him whom He has sent."** (John 6:29)

And how does this "trust" manifest itself in what a Christian or believing Jew does? How does it affect his relationships, actions, and attitudes? The answer is revealed in both "testaments." Its core (as I said) is *love*, both for God and toward our fellow man. Its function is explained by the Hebrew prophet Micah. After stating that Yahweh isn't interested in the Levitical sacrifices and priestly rituals outlined in the Torah *per se*, he explains what these things were *actually* meant to teach us: "He has shown you, O man, what is good; and what does Yahweh require of you but to do justly, to love mercy, and to walk humbly with your God?" (Micah 6:8) And Yahshua described at length what real love is in the Sermon on the Mount (Matthew 5-6), in terms that should make most of us blush with shame at our utter failure to measure up.

Paul explained further: "[If I] have not love, [my eloquence, gifts, knowledge, faith, service, and sacrifice] profit me nothing. Love suffers long and is kind; love does not envy; love does not parade itself, is not puffed up; does not behave rudely, does not seek its own, is not provoked, thinks no evil; does not rejoice in iniquity, but rejoices in the truth; bears all things, believes all things, hopes all things, endures all things. Love never fails." (I Corinthians 13:3-8).

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Since our background subject here is Biblical prophecy, there are a few issues we need to explore that we would expect to come into focus as we get closer and closer to the end of the age. In no particular order...

## Bible Translation: the Plan and Projection

In the Olivet Discourse, Yahshua told us, "This Gospel of the Kingdom will be preached in all the world as a witness to all the nations, and then the end will come." (Matthew 24:14) It's pretty clear, then, that no significant segments of humanity must remain in the dark about the good news about God's offer of salvation

through Christ when "then end" (which I'd take to mean the Tribulation—the final seven years of the age) begins. Ironically, the same technology required to facilitate the mark of the beast—the Internet—now has the capacity now to reach virtually the whole world with the Gospel. The nearly ubiquitous availability of electronic media today—radio, television, and the Web—can bring Christ's salvation to every corner of the globe.

So if people still haven't heard the Gospel at this late date, chances are it's because of one of two reasons: either they're purposely avoiding it—willful ignorance—or they're being intentionally kept in the dark by those who rule over them—as in parts of dar al-Islam or the darkest pits of Communism today. In other words, the unavailability of the Gospel is either spiritual suicide or spiritual murder. Almost nobody is "falling through the cracks" these days. And that's something you couldn't have said even thirty or forty years ago. Of course, you can make God's word available, but you can't force people to respond to it.

What about the "language barrier?" As far as the Gospel goes, it has virtually disappeared. At the end of the 19th century, the Bible had been translated into 522 languages, a remarkable achievement considering the technical hurdles the translators faced. But a century later, 2,200 people groups possessed the Word of God in their native tongues. That's 99.95 percent of the world's population. Wycliffe Bible Translators (a missions group whose specialty is translating the Word of God into the languages of previously unreached peoples) reports that with the help of computer technology, they now expect to have the Word of God translated into every language spoken on earth—even those tiny "pre-literate" groups (mostly in India or Southeast Asia) currently without their own written alphabet—by 2025. Interesting time frame, is it not?

It should be obvious that nobody will be translating the Bible into new languages after the rapture. In fact, I would expect God's word to be suppressed, confiscated, burned in the streets, and scrubbed from the Internet by the time the Tribulation hits its stride. But from the days of Eden, Yahweh has never left Himself without a witness. So during the Tribulation, if people don't have the Bible or Christian mentors to turn to for spiritual guidance, how will Yahweh communicate with them? The old-fashioned way: by word of mouth.

In Revelation 17, we are told of three angels delivering three messages to the people of the earth: "Then I saw another angel flying in the midst of heaven, having the everlasting gospel to preach to those who dwell on the earth—to every nation, tribe, tongue, and people—saying with a loud voice, 'Fear God and give glory to Him, for the hour of His judgment has come; and worship Him who made heaven and earth, the sea and springs of water.' And another angel followed, saying, 'Babylon is fallen, is fallen, that great city, because she has made all nations drink of the wine of the wrath of her fornication.' Then a third angel followed them, saying with a loud voice, 'If anyone worships the beast and his

image, and receives his mark on his forehead or on his hand, he himself shall also drink of the wine of the wrath of God." (Revelation 14:6-10) In short, the messages are: (1) Honor Yahweh your Creator; (2) don't trust the world's system of government, religion, or finance; and (3) don't fall for the dragon's lies, or accept Satan's claim upon you, whatever you do. Actually, that's good advice in any age.

#### Israel's conundrum

The Tribulation is called "the time of Jacob's trouble," and the prophecy of Daniel 9:24-27 makes it clear that its duration is defined by the final "week" of the "seventy weeks" (a "week" being seven schematic 360-day "years") that are "determined for your [Daniel's] people and for your holy city" (Jerusalem). There's no way around it: Israel, as a nation and a race, will be subjected to the judgment and wrath of the Tribulation, even though the church (that is, the *real* called-out assembly of Yahshua, represented by the saints of "Philadelphia") will not. In fact, Israel—and Jerusalem in particular—will be the center ring of the Tribulation's circus: the point of focus, the military and religious objective, and the bone of contention.

As you know, Jews (Israelites) are a tiny minority, no matter how you slice it—no more than 2/10 of 1% of the world's population. Half of them (that we know of) live in the nation of Israel, and the other half are spread across the globe (most of them in America, and a few in Europe). Recurring waves of anti-Semitism—the irrational and groundless hatred of Jews that has followed this people throughout the centuries—still take place, though unlike the Muslims who have settled in the same lands, Jews have made every effort to assimilate into their adopted societies while retaining their racial identity and (in many cases) their religion.

Jews living outside the Land of Israel are known—and have been for millennia—as the "diaspora," the "dispersed ones." It began in 722 B.C., with the Assyrian conquest of the "ten northern tribes" of Israel (a.k.a. Samaria, a.k.a. Ephraim, a.k.a. "the ten lost tribes," though they're not "lost" to Yahweh). It continued with the Babylonian invasion of Judah (with Benjamin), beginning in 601 B.C. The process was "completed" under the Romans, first under Titus in 70 A.D., and later by Hadrian, in 135, who so wanted to break the Jews' emotional attachment to the land, he renamed it Palestina, after the long-extinct Philistines. All of this was in response to Israel's rebellion against Yahweh, though every last tragedy that befell them had been foretold in gruesome detail in Deuteronomy 28—information and admonition they had been given before they even entered the Land.

But the restoration and redemption of Israel—as a nation—is by far the most oft-repeated prophecy in all of scripture. Yahweh knew they would fail, of course. (It must suck to be omniscient sometimes.) So He made this promise: **"Now it shall** 

come to pass, when all these things come upon you, the blessing and the curse which I have set before you, and you call them to mind among all the nations where Yahweh your God drives you, and you return to Yahweh your God and obey His voice, according to all that I command you today, you and your children, with all your heart and with all your soul, that Yahweh your God will bring you back from captivity, and have compassion on you, and gather you again from all the nations where the Lord your God has scattered you...." Don't skip over the conditional requirement—"When you return to Yahweh your God." But note that He didn't say "if." Yahweh knew that they *would* (eventually) return and obey His voice. It hasn't happened yet, but it will.

"If any of you are driven out to the farthest parts under heaven, from there Yahweh your God will gather you, and from there He will bring you. Then Yahweh your God will bring you to the land which your fathers possessed, and you shall possess it. He will prosper you and multiply you more than your fathers. And Yahweh your God will circumcise your heart and the heart of your descendants, to love Yahweh your God with all your heart and with all your soul, that you may live." (Deuteronomy 30:1-6) Remarkably, history would show that the "gathering," the "possession," and the "prosperity" would begin *before* Israel had reestablished their relationship with Yahweh. The dark days under the Nazi holocaust were the catalyst that brought the world together for one brief moment of sanity, setting aside a tiny piece of land (more or less where the Bible said it should be) as a Jewish homeland. Israel as a nation was reborn in 1948.

There's a Hebrew word—*Aliyah* (meaning "ascent")—that describes the immigration of the Jewish diaspora back to the Land. Reading between the lines of prophetic scripture, it would seem that the number of Jews "making *Aliyah*" will increase dramatically as the end of the age approaches, the result of increasing anti-Jewish sentiment in the world and the relentless call of Yahweh upon Israel: **"Yahweh your God will bring you to the land which your fathers possessed."** In particular, I foresee the ministry of the 144,000 sealed Jews introduced in Revelation 7 to take place within the Land of Israel, for in chapter 14, they are all seen standing with the Lamb on Mount Zion—in Jerusalem. Since Zionism began in earnest in 1882, over 3,600,000 Jews from all over the world have made *Aliyah*.

But the process of "circumcision of the heart" will not be complete until they recognize and receive Yahshua as their Messiah. This event—the "great awakening"—is prophetically memorialized in the sixth (and next-to-last) Holy Convocation of Israel: the Day of Atonement. Not coincidentally, this day will mark the return of the Messiah to the Mount of Olives, as prophesied in Zechariah 14:4 and Acts 1:11, and described in Zechariah 12:10.

It's a good-news, bad-news story. The good news is that Israel will indeed be regathered and redeemed—never again to rebel against Yahweh their God. The bad news is that it will take the horrors of the Tribulation to compel them to see

Yahweh and His Messiah for who they really are. The Day of Atonement, like all seven of Yahweh's "feasts," can be expected to fall on the very calendar day of its Levitical mandate—which puts Israel's national redemption a mere five days from the end of the Tribulation. That's five days before the beginning of Christ's kingdom age, marked by the Feast of Tabernacles—in the autumn of 2033, unless I'm mistaken about a great many things.

## Rebuilding the Temple

There are two temples in Israel's past (three if you count the wilderness tabernacle), and two in its future. The Third Temple will play a significant role in the unfolding of Tribulation events. It is virtually certain that it will be built on the Temple Mount (though there's no reason to suppose the Muslim mosques and shrines that inhabit the space will be removed to make room for it). Reading between the lines (again) the Third Temple would appear to be a bribe for Israel's acceptance of a suicidal land-for-peace deal cooked up by the Antichrist: "Then he [the 'prince who is to come'] shall confirm a covenant with many for one week; but in the middle of the week he shall bring an end to sacrifice and offering." (Daniel 9:27) You can't "bring an end" to something that hasn't begun, and there's no lawful way to make Levitical sacrifices and offerings without a temple and a priesthood in place. So three and a half years after the Tribulation has begun (the starting bell being the "covenant with many" mentioned here) the Antichrist (a.k.a. "the prince who is to come," a.k.a. the man of sin, a.k.a. the son of perdition, a.k.a. the beast from the sea) will call a halt to the very thing his treaty made possible—the resumption of Jewish worship on the Temple Mount after a 1900-year hiatus.

Why would he do this? It's because the mid-point of the Tribulation (actually thirty days prior to it) marks the beginning of *his* three and a half year reign as dictator of Earth. But he will not be content with being a popular politician. He wants to be worshiped as *god*. Paul informs us: **"The man of sin [will be] revealed, the son of perdition, who opposes and exalts himself above all that is called God or that is worshiped, so that he sits as God in the temple of God, showing himself that he is God."** (II Thessalonians 2:3-4) That's right: the new temple will be "re-tasked" for Satan's purposes, sort of like what happened to the second temple when Antiochus IV Epiphanes (on Kislev 25, 168 B.C.) set up a statue of Zeus in the temple and sacrificed a sow on the altar—the original "abomination of desolation" (prophesied in Daniel 8, right down to the number of days it would take to cleanse the temple). There goes the neighborhood. Again.

Christ warned about this very thing in the Olivet Discourse: **"So when you see** the 'abomination of desolation,' spoken of by Daniel the prophet, standing where it ought not" (let the reader understand), "then let those who are in Judea flee to the mountains." The definitive "abomination of desolation" is the very event we just read about when the Antichrist "sits in the temple of God" trying to pass himself off as God incarnate. "Let him who is on the housetop not go down into the house, nor enter to take anything out of his house. And let him who is in the field not go back to get his clothes. But woe to those who are pregnant and to those who are nursing babies in those days! And pray that your flight may not be in winter. For in those days there will be tribulation, such as has not been since the beginning of the creation which God created until this time, nor ever shall be. And unless the Lord had shortened those days, no flesh would be saved; but for the elect's sake, whom He chose, He shortened the days." (Mark 13:14-20)

The "Daniel" reference about the final abomination is even more specific than the 9:27 reference I quoted above. A bit later, we are told, "And from the time that the daily sacrifice is taken away, and the abomination of desolation is set up, there shall be one thousand two hundred and ninety days." (Daniel 12:11) So there will be three and a half "schematic" years (1,260 days) plus one month between the beginning of the Antichrist's reign and the end of the Tribulation. That is, the 42-months allotted for the Beast to "exercise his authority" (see Revelation 13:5) will conclude a month before the end. The reinstituted sacrifices and offerings will be allowed to continue for a month after the Antichrist's reign begins, but this ruse of "peaceful coexistence" with the Jews won't last long.

This, then, is how the Third Temple will be built, used, and then *mis*used during the Tribulation. It is inconceivable (to me, anyway) that the returning Messiah will want to make use of such a polluted venue during His Millennial reign. And if we study the specifications of the Millennial Temple in Ezekiel 40-47, we'll discover that this final earthly temple (if we take the dimensions of the courtyard, including the required 50 cubit open space around it, into account) won't fit on the Temple Mount. In fact, the entire topography of Jerusalem is prophesied to be drastically altered before Christ's Millennial kingdom commences. (See Chapter 27 of this work, *The Millennial Temple*, for the details.)

I realize that Israel being given permission to rebuild *their* temple on *their* Temple Mount is probably the least-likely scenario one could possibly imagine right now, given the geopolitical state of the world. But it's the *only* thing (at least, the only one *I* can imagine) that might possibly convince the Israeli Jews that the Muslims are serious about living in peace with them. Think about it. It would be the ultimate Islamic ruse—the boldest use of *Taqiyya* ever devised: allow the Jews to rebuild the temple so they'll drop their guard, leaving their country a "land of unwalled villages." When they've gotten used to the idea of peaceful coexistence, when they've turned their attention away from their defense and back to their God, *then* the Muslims will attack, using the new temple as the focal point of their rage. It's as brilliant as it is evil.

And yet, as unlikely as the go-ahead for building the Third Temple might seem, faithful Jewish groups like the Temple Institute—backed by evangelical Christians—are proceeding with preparations. Not wanting to be caught flatfooted when the Messiah comes, they have spent over \$27 million so far constructing the necessary appurtenances: solid gold vessels for the service of the sanctuary, a menorah made of 95 pounds of gold, silver trumpets (the '*hasoserah* of Numbers 10), the priestly garments, and more. The temple itself has been designed, and the cornerstone cut. Priests are being trained, and red heifers (whose ashes are presumably required for the cleansing of the building site) are being bred.

When confronted with the fact that there is no temple, and no immediate prospects for building one, the faithful simply grin and say, "Yes. What's your point? We must be ready for our Messiah. Would you like to make a contribution?" Such enthusiasm has been known to change the world.

#### The Rapture

Finally, we should consider how God's counter-intuitive "exit strategy" for the church—the rapture—can be expected to impact the world when it happens. "Fundamentalists" or "evangelicals" comprise but a small percentage of the world's population (and indeed, are probably not even a majority of the "leftover" 14% category we discussed above). So am I suggesting that countries (like America) where evangelicals are relatively numerous will be the only places where the rapture is even noticed? No, not really. Although the top-heavy oftenidolatrous structure of the Roman Catholic Church (and some other quasi-Christian constructs) are far from conducive to genuine salvation, God knows who among the laity are His. This is demonstrated by the *commendations* Christ gave to the churches of Thyatira and Sardis in Revelation 2 and 3, which represent (let's face it) spiritual profiles wallowing in error and apostasy.

There are two "litmus tests" among the visible church (i.e., "nominal" Christianity) that will determine who will be shown in the end to be genuinely saved. The first is the indwelling (the quickening, or making-alive) by the Holy Spirit, as explained by Yahshua to Nicodemus in John 3. The second is the profile of the Church of Philadelphia, the church of the rapture: **"Because you have kept My command to persevere, I also will keep you from the hour of trial which shall come upon the whole world, to test those who dwell on the earth."** (Revelation 3:10) The Philadelphians are defined thus: they (1) have a little strength, that is, neither a lot nor none at all, (2) have kept Christ's word, (3) have not denied His name, (4) have kept His command to persevere, and (5) have held fast to what they have been given—crowns of victorious righteousness. Alas, I expect there to be multitudes of "nominal Christians" who fit none of those criteria (and will subsequently find themselves "left behind"), but I also hold out a strong hope that multitudes of believers of every conceivable denominational stripe and liturgical tradition will be found to fit this profile when the time comes. Is this just wishful thinking on my part? I think not. Why? Because of God's consistent symbolic characterization of what the rapture actually is. It's *not* merely a magical get-out-of-trouble-free card for Bible thumpers (as it is so often characterized). Escape from the Tribulation's horrors is merely a *byproduct* of the rapture's promise; it's far from being the central issue. Its point is the *physical separation* of the church from the world in anticipation of God's holy wrath, prophetic precursors of which are the removal of Noah from the flooded earth and the extrication of Lot from wicked Sodom. The rapture will be achieved by the translation of our bodies (living or dead) into their immortal form—something that had to happen at some point, and will happen to *every* believer eventually. This process—and the public way it's done—will be a witness to the world that there is a God, and that He is as good as His word, with all that implies: the good news, *and* the bad news.

I have noted elsewhere that the "Feast of Trumpets" (the fifth *miqra* or holy appointment in Yahweh's seven-convocation annual schedule), is almost certainly prophetic of the rapture. The symbology is identical, and no other prophesied event in scripture fits the profile, even remotely. You're free to disagree with me, of course, but if you do, you must figure out what prophesied future event the Feast of Trumpets celebrates that could rival the rapture in significance. Stumped? Me too. One thing is absolutely certain: it is *not* "New Year's Day" on the Jewish calendar, *Rosh Hashanah*. Yahweh specified the first day of Nisan (in the spring) for that, and it's not even one of His seven holy convocations.

The name of the Feast in Hebrew is *Yom Teruah*—meaning the day of shouting or of blowing trumpets. *Teruah* can imply either great joy or alarm—an outburst of celebration or a call to war, depending upon who (and *whose*) you are, and under what circumstances the trumpet is blown or the shout is uttered. (That is, it's a shout of joy if you're a participant, and a bugle calling you to battle if you're not.) If I'm right about any of this, the rapture will take place at the time of an autumn new moon (the first day of Tishri on the Hebrew calendar) some year between now and the beginning of the Tribulation (Saturday, November 14, 2026, presuming my observations are correct).

Paul described the event like this: "We shall not all sleep, but we shall all be changed—in a moment, in the twinkling of an eye, at the last [Greek: *eschatos*—last or final in time or place, extreme, or ultimate] trumpet. For the trumpet will sound, and the dead will be raised incorruptible, and we shall be changed. For this corruptible must put on incorruption, and this mortal must put on immortality." (I Corinthians 15:51-53) "For the Lord Himself will descend from heaven with a shout, with the voice of an archangel, and with the trumpet of God. And the dead in Christ will rise first. Then we who are alive and remain shall be caught up [Greek *harpazo*, Latin *rapiemur—that*'s where the English word "rapture" comes from] together with them in the clouds to

meet the Lord in the air. And thus we shall always be with the Lord." (I Thessalonians 4:16-17) Paul was writing to Christians, of course, so the information he imparted, stressing our transformation, was primarily intended to be germane to us. The celebratory shout by the participants (both divine *and* human, I'm guessing) and the joyous "trump of God" is easy enough to envision.

But because of what *Yom Teruah* means—the day (*yom*) of the "shout or blast of war, alarm, or joy" (*teruah*)—it would seem that the disappearance of significant numbers of Christians will be *required* in order to cause the appropriate "alarm" among those left behind. It would seem self-evident that the disappearance of a few hundred super-saints spread out all over the world would not be sufficiently "alarming" for God's purposes. In order for the rapture to fulfill this function of the Feast of Trumpets, it must be an unprecedented, unexpected, earthshakingly significant event—a wake-up call of "Biblical proportions" for the world.

Oh, and by the way, the "alarm function" of the Feast of Trumpets would be pointless if it were to come after the Tribulation was over—the premise of the "post-Tribulation" theory. There is no point in sounding a "two-minute warning" at a football game two minutes *after* the game has ended. If it is to serve as a wake-up call, it must happen *before* the Great Unpleasantness gets underway, even before the utter chaos of World War III ensues. The Christians not only have to go missing, they have to *be noticed* to have gone missing.

How many will be raptured? We aren't told (for obvious reasons), and frankly, it's none of our business. Our instructions stand, regardless. But personally, I'm expecting hundreds of millions worldwide (and *praying* for a billion)—enough to *force* the planet to wake up and take notice. Based on God's established pattern of longsuffering and patience, I would also expect Yahshua to delay His coming until the last possible moment (known only to Him), giving the world every opportunity to repent (though scripture doesn't actually spell this out—it's just an observation on my part). If this proves true, it would *suggest* (in light of a hundred other factors we've already discussed) that the earth could host as many as nine billion souls on rapture day. A couple of hundred million raptured souls is only about two percent of that. (I know: it sounds awfully pessimistic when put in those terms.)

Whatever our numbers, though, the post-rapture world will quickly experience a shortage of whatever it was we brought to the party. A quick survey of I John reveals a whole list of attributes that identify us as Christ's in this world. In order of their appearance: fellowship with God; joy; light; truth; an aversion to sin; obedience to God's commands; enlightenment; knowledge; discernment; anointing; confidence; holiness (i.e., separation from the world); Christ-likeness; purity; judicial innocence; adoption as God's children; brotherly love; sacrificial love; the indwelling of God's Spirit; the ability to overcome evil; testimony and witness; boldness; fearlessness; perfection (i.e., completion); belief (faith); victory over the world; and eternal life. For *real* Christians, the heart and source of this profile can be boiled down to one word: love.

Of course, *religion* will still be here, and with it all of the works-based tradition that served as soteriological strategy for centuries—sometimes millennia—on end. I believe it to be quite likely that the sudden disappearance of hundreds of millions of fundamentalist Christians will, while causing confusion and consternation, give the world's remaining belief systems reason for hope—hope that *their own* views would soon be vindicated, that is. Without those inconvenient "Christian radical extremists" around to trouble them anymore, the Religion of Compromise can plow ahead with their dream of unifying everyone in the soft, lukewarm primordial ooze of a one-world religion in which *no one* has any firm convictions about anything, *no one* expresses an opinion, and *no one* is permitted to suggest there is such a thing as absolute truth. The Religion of Despair (with no particular convictions of their own) will find such compromise the next best thing to actual peace, for remarkably, the Religion of Death—under the surprising direction of the long awaited and newly ascendant Mahdi—will appear amenable to a cessation of violence.

But the biggest surprise of all will be the one who has brought everyone to the table: a card-carrying member of the Religion of Denial. He is neither a Christian, nor a Jew, nor a Hindu, nor a Muslim, but a godless man who convincingly proclaims that peace is at hand if only the world will stop for a moment, take a deep breath, and awaken to the fact that they all, in reality, worship the same god. And for a brief moment, they will all do precisely that. Unfortunately, the "god" they all find themselves worshiping is Satan, humanity's adversary and slanderer, the dragon, the serpent of Eden, the father of lies.

With the true church caught up out of the world and Israel sequestered within it, with the devil unmasked and in total (albeit temporary) control of the world, the hapless inhabitants of the earth will at last have to make up their minds. They'll have to follow either glowing lies or uncomfortable truths. They must finally choose between meandering down the torpid stream of least resistance and following their nagging, prickly God-given consciences. And in the end, they'll be forced to choose between permanent death masquerading as life and eternal life attainable only through the death of innocence.

I hate to rush you, but you're running out of time.

Appendix 12

# Prophetic Chronology Chart

Yahweh's Plan for Planet Earth-from "Day One" Forward

Basic Assumptions. (Caution: if I'm wrong about *any* of these, the dates will be wrong as well)...

- 1. Yahweh doesn't do or say anything on a pointless whim. Everything He has told us in His word has something to do with either our well-being in this life or His ultimate plan for our redemption and reconciliation with Him.
- 2. The things most crucial to our knowledge of His plan are repeated and restated several different ways in various places in scripture.
- 3. The scriptural formula equating one day to a thousand years (II Peter 3:8, Psalm 90:4) is not merely a metaphor, but is an indication of Yahweh's ordained structure for the time of man.
- 4. The often-repeated six-plus-one pattern (e.g. the Creation account, Sabbath day and year, Jubilee, the Feasts of Yahweh, etc.) is indicative of God's redemptive plan: fallen man is to "work" for six thousand years, and will "rest" during the seventh Millennium.
- 5. The total allotted time of fallen man (from Adam's sin forward) on the earth is (based on assumptions 3 and 4) seven thousand years, after which the eternal state will commence.
- 6. Each of man's seven allotted millennia will be marked with a condition or event that is significant in demonstrating the need or provision of Yahweh's salvation. The most significant was Yahshua's crucifixion and resurrection in 33 A.D.
- 7. The seven *miqra'ey*, or "Feasts of Yahweh" mandated in the Torah commemorate the progression of Yahweh's program.
- Note: Dates before about 1000 BC are not verifiable (due mainly to linguistic and textual discrepancies). Biblical scholars do not remotely agree on calendar dates before David/Solomon. Therefore, please understand that the dates and/or events I've assigned to the pre-1000 BC period are *guesses* based on the model that becomes apparent when studying the more verifiable data of the last 3000 years.

DATE	YEAR (ABSOLUTE)	YEAR (GREGORIAN)	EVENT	FULFILLMENT OF
	0	3967 BC	Fall of Adam.	Millennial milestone #1 Genesis 3:17-19
	1000	2967 BC	Mankind becomes so evil, Yahweh purposes to destroy the earth with a flood.	Millennial milestone #2 Genesis 6:5-7
	2000	1967 BC	Abraham offers Isaac on Mt. Moriah— a type of Yahshua's sacrifice on Calvary.	Millennial milestone #3 Genesis 22:8-14
Iyar 2	3000	967 BC	Solomon begins construction of the first temple on Mt. Moriah, linking God's chosen location to the tabernacle's Messianic symbology.	Millennial milestone #4 2 Chronicles 3:1-2
Nisan 1	3523	444 BC	Artaxerxes Longimanus decrees that Jerusalem and its wall are to be rebuilt.	Beginning of Daniel's 70-week prophecy. Daniel 9:24-27
Adar 30	3999	33 AD	The deadline for the "Sun of Righteousness to arise with healing in His wings," i.e. Yahshua's earthly ministry (wings= <i>Tsitzit</i> —Numbers 15:37-41).	Appearance of the sun on the fourth day of creation: compare Genesis 1:16-19 with Malachi 4:2
Nisan 10 March 28		33 AD	Yahshua triumphantly enters Jerusalem— on the same day the Passover lambs were to enter the Israelite households; Palm Monday.	Conclusion of Daniel's 69 <sup>th</sup> prophetic week. Daniel 9:26, Exodus 12:3; Luke 19:37-38 Millennial milestone #5
Nisan 14 April 1 Friday	4000	33 AD	Yahshua crucified to atone for the sins of all mankind the same day and time the Passover lambs were being slain.	Passover, the first of seven <i>miqra'ey</i> in Yahweh's series. Leviticus 23:4-5
Nisan 15 April 2 Saturday	4000	33 AD	Yahshua is entombed, His death effecting the complete and permanent removal of our sin.	Feast of Unleavened Bread, <i>Miqra</i> #2; Leviticus 23:6-8; A mandated Sabbath
Nisan 16 April 3 Sunday	4000	33 AD	The resurrection of Yahshua from the dead, proving that the harvest is to follow—a promise of our coming resurrection.	<i>Miqra</i> #3: Feast of Firstfruits Leviticus 23:9-14 I Corinthians 15:20-23
Iyar 25 May 12	4000	33 AD	The ascension of Yahshua from the Mount of Olives: visible, public, prophetic.	Acts 1:3, 9-11; Zechariah 14:4
Sivan 6 May 22 Sunday	4000	33 AD	The Holy Spirit indwells the <i>Ekklesia</i> , the Body of Christ, as promised in John 14:16-18.	Feast of Weeks—Pentecost, <i>Miqra</i> #4, Leviticus 23:15-22 Acts 2:1-4

Tishri 10 4000 September 21	33 AD	Jubilee year starts (once every fifty years, beginning on the Day of Atonement). The first of 40 jubilees separating Yahshua's crucifixion and final coming.	Leviticus 25:8-55 Luke 4:16-19 Zechariah 12: 10-14
5000	1033	The mid-point of the Christian era: The beginning of the papal reign of Benedict IX. The unified Church's nadir. Earthquake in Jerusalem poisons the Spring Of Gihon for 40 years, proving our guilt.	Millennial milestone #6 The Church of Thyatira Revelation 2:18-29 Numbers 5:11-31
Tishri 1 (Year not spe September or October	cified)	The rapture of the Church, including the living saints and the "dead in Christ." We will all be "changed" in form and caught up in the air to be with Yahshua.	<i>Miqra</i> #5: Feast of Trumpets Leviticus 23:23-25 I Thessalonians 4:13-17 I Corinthians 15:51-54
Nov. 14 5993 Kislev 4 Saturday	2026	The "Tribulation" begins with the confirm- ation of a "covenant with many" (UN 242?) brokered by the Antichrist. He is by this act revealed to be the "man of sin."	Daniel 9:27. The last of Daniel's 70 weeks: 2520 days 1 <sup>st</sup> seal, Revelation 6:1-2 II Thessalonians 2:3-4
Date not spec (probably late		Battle of Magog, leading to World War III. Islamic armies invade Israel to be defeated by Yahweh; one fourth of mankind is killed; one third of earth is burned.	Ezekiel 38, 39; Daniel 11:40-43 Seals 2-4: Revelation 6:3-8 Trumpets 1-4: Rev. 8:1-13
April 13 5996 Nisan 28 Friday	2029	The Apophis meteorite strikes the earth's atmosphere. One third of the world's sea dies. Commercial Babylon falls. Earth's skies are darkened.	Revelation 8:8-13; Revelation 18 Trumpets 2-4
March 28 5997 Adar II 23 Thursday	2030	The Abomination of Desolation: Antichrist declares himself to be god, is acclaimed as the ruler of the whole world. The Jews begin their 1260-day flight from Israel.	1290 days until the end= 1230 days after Tribulation begins. Daniel 12:11 Revelation 12:6; Matt. 24:15-21
Date not spec (Shortly after A		The mark of the Beast instituted, requiring That all people submit to and worship the Antichrist and use his financial system	Revelation 13:15-18
April 18 5997 Nisan 15 Thursday	2030	The two witnesses begin their 1260-day ministry pronouncing plagues upon the earth. On the Feast of Unleavened Bread.	Revelation 11:3-6 Zechariah 4:2-6, 11-14 Leviticus 23:6-8
Date not spec	cified	Locust-demons are released to torment the Antichrist's followers for five months.	Fifth trumpet judgment Revelation 9:1-12

April 23 5998 (?)	2031	A 200,000,000-man Asian army begins its conquest of the far east: World War IV	Sixth trumpet judgment Revelation 9:13-21
Date not spe	cified	Euphrates River dries up, allowing the Asian Army to mass against Israel, joined by forces of the Antichrist from every nation.	Sixth bowl judgment Revelation 16:12-14
Sept. 8 6000	2033	The end of the Antichrist's total control of the earth. $(3\frac{1}{2})$ years after the abomination of desolation, one month before the end of the Tribulation.)	Daniel 12:7, Revelation 12:14
Sept. 29 6000	2033	The two witnesses are slain by the Antichrist in Jerusalem. Their corpses lie in the street for three and a half days.	Revelation 11:7-10
Tishri 10 6000 October 3 Monday	2033	The two witnesses arise from the dead and are raptured. A huge earthquake follows within the hour, shaking the entire earth. It is caused by Yahshua's return to the Mount of Olives. Israel recognizes her Messiah-King and mourns in repentance.	Revelation 11:11-13 <i>Miqra</i> #6: the Day of Atonement Leviticus 23:26-32 Zechariah 14:4 Zechariah 12:10-14
Date not spe (Between October		Yahshua single-handedly destroys the armies assembled against Israel in the "Battle of of Armageddon." The raptured saints are observers. The Antichrist and False Prophet are captured and thrown alive into hell.	Revelation 19:11-21 Revelation 14:14-20 Isaiah 63:1-6
Tishri 15 6000 October 8 Saturday	2033	The Millennial Reign of Yahshua begins. Satan is bound for a thousand years. Yahshua reigns in Jerusalem as King. The 40 <sup>th</sup> Jubilee since the resurrection begins.	<i>Miqra</i> #7: the Feast of Tabernacles. Leviticus 23:33-44 Millennial milestone #7 Revelation 20:1-6; Lev. 25:8-11
Heshlan 30 6000 Nov. 22	2033	The "separation of the sheep and goats" is completed. 1335 days after A of D.	Matthew 25:31-46 Daniel 12:12
7000 and be	yond	Satan is released from the abyss, deceives many, who rebel and are destroyed. Satan is cast into the lake of fire. The unredeemed dead are judged at the Great White Throne. Eternity commences. New heaven and earth.	Revelation 20:7-15 Revelation 21-22