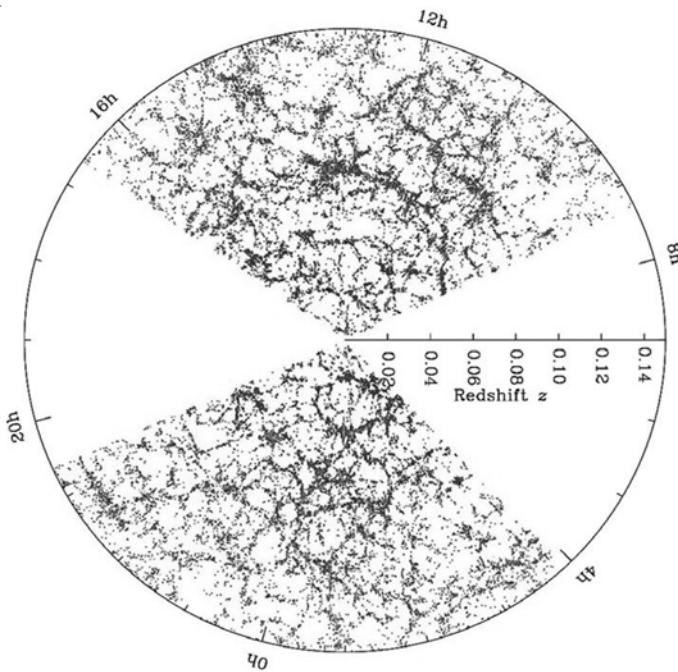


12. Universe of God

We can no longer think of God as our ancient ancestors did: a spirit whose aid we can purchase with a few paltry tokens or mumbled words to give us a good hunt, to "deliver us from evil", to serve us. The Great Spirit is not simply the God of Abraham and Isaac. The Great Spirit is the creator of the Universe, perhaps 91 billion light-years across, billions of years old, containing untold billions of galaxies and, doubtless, other sentient beings. Perhaps God also created other universes made of things other than space, time, energy, and matter; of things that we can not imagine. But that's God stuff and far, far beyond our ken. The belief of the faithful of all religions that they know anything at all about God stuff is human hubris of such magnitude as to severely challenge forgiveness, hubris only a charitable God can forgive.

There's no philosophy here. Philosophy is the plaything of idle minds and has the same value as other toys; it doesn't pay the rent or buy us food. Neither is there comfort in these pages, and we love our comfort. It's probably instinctive: comfort is safe and nonthreatening, and there's survival value in that. We have life, and comfort is an extra that comes on only a few deluxe models. There is only truth here, though not all of it. Here is, perhaps, what little truth we poor humans can understand although a novelist once wrote, "A lot of people don't want to hear the truth if it doesn't support what they believe," which is a restatement of a famous Nietzsche quote. Perhaps some who find truth a pleasant thing will find comfort here, but those people are exceedingly few in number. The same novelist also wrote, "Not many of us really want to know, we want to believe." Ignorance is truth, and those who recognize their ignorance see truth. Recognition of human ignorance about the Almighty is much of the truth in these pages. We do not know God stuff even though many of us think we do. Self deception is a pervasive human trait. And so, doubtless, few will find anything of interest to them in this small voice in the wilderness.

Ever since our ancestors first lifted their eyes from the dirt beneath their feet to gaze upon the stars and wonder more than where their next meal would come from, we've sought answers to the great questions: where did it all come from and why. It is both the glory and tragedy of humanity that we seek answers to those questions, glory because they are the most fundamental questions of existence and humans have the rare privilege of being able to ask them, and tragedy because they are ultimately unanswerable.



A Map of a Tiny Fraction of the Universe

This is a map showing all galaxies in the very tiny wedge of the sky between 1.25 degrees north latitude and 1.25 degrees south latitude and out to 1 billion light years distant that have been detected by the Sloan Digital Sky Survey (SDSS). It's also shown on page 20. Each dot is a galaxy typically containing around 100 billion stars. The blank wedges on the left and right are in the plane of the Milky Way; nothing can be seen in those directions because dust in our own Galaxy blocks visible light used in the survey although galaxies that lie in our Galactic plane can be detected using infrared. The SDSS is the best evidence that God is more than simply Yahweh of Abraham and Isaac of the *Tanakh*, more than merely Allah of the *Qur'an*; God is the Creator of an enormous Universe composed of billions of galaxies, each containing billions of stars. We are fortunate beyond all telling that we live in God's awesome Universe.

Credit: Sloan Digital Sky Survey (SDSS) Collaboration, <http://www.sdss.org>

Eons ago, humanity attempted to answer these questions through religion. Unfortunately, there are no "answers in the back of the book" to let us know we have it right, so we have numerous answers, none provably more correct than any other. Now science is having a go at the "where did it all come from" question, although it is not equipped to answer the "why" question. Science's answer to the "where did it all come from" question is the Big Bang. "Big Bang" is a term first coined by Sir Fred Hoyle during a British Broadcasting Corporation (BBC) radio broadcast and was meant to be a term of derision. Astrophysicists, however, found the term endearing. Nearly all scientists are aware that the Big Bang doesn't really answer the "where did it all come from" question because it leaves open the question of where the Big Bang came from. As Dr. Alex Filippenko said, the Big Bang simply "kicks the can a little farther down the road".

Thus, astrophysicists look for natural processes (a requirement of science) that can give rise to a Big Bang. For example, those familiar with quantum mechanics propose quantum fluctuations in vacuum energy as the Big Bang's source. Although a fluctuation the size of the Big Bang has a vanishingly small probability of happening, over infinite space and eternal time (which are assumptions of this hypothesis), it's bound to happen. String theory and the original version of the ekpyrotic cyclic universe, or big bounce, both hypothesize colliding multidimensional membranes give rise to Big Bangs, but they don't say where the membranes come from. They're just kicking the can again. However, scientists are never so arrogant as to say, "When I am done, nothing more need be said." They all are happy to be simply a part of the journey of discovery. Besides, at every step of the way, the issues are complex enough and the mathematics interesting enough to occupy researchers' minds. Thus, that colliding membranes are only the proximate and not the ultimate cause of the Big Bang is no argument against the hypothesis and no black mark against those who support it.

As mentioned just previously, some scientific hypotheses of how the Big Bang came to occur assume that space is infinite and that space, time, and natural laws are eternal. Thus, during a panel discussion called "Did the Big Bang Require a Divine Spark?" at the SETICon II Conference, June 22-24, 2012 in Santa Clara, CA, astrophysicist Alex Filippenko of the University of California, Berkeley said, "The Big Bang could've occurred as a result of just the laws of physics being there. With the laws of physics, you can get universes." The assumptions that space, time, and natural laws are eternal could be wrong. They're not verifiable, but scientific assumptions are not necessarily required to be verifiable. They are sometimes simply necessary to obtain a pencil and paper solution to a physical problem and become part of that particular solution. For example, Einstein's tensor equations of General Relativity are extremely complex (nonlinear in scientific terms), and various simplifying assumptions frequently have been made in order to solve them using pencil and paper. Because simplifying assumptions are part of the solution, their reasonableness and limitations can be examined as part of the evaluation of the worth of the associated solution. Now, in the twentieth and twenty-first centuries, the equations can be programmed on a computer and solved more exactly than with pencil and paper.

The assumption that the laws of nature are eternal, or at least predate the Big Bang, is necessary for scientific hypotheses of the cause of the Big Bang because science is the study of natural laws, so there can be no pre-Big Bang science without them. However, other than that, there's no reason to assume natural laws existed prior to the Big Bang; of course, there's no reason to assume otherwise either. Although the assumptions that space, time, and natural laws are eternal need not be verified, conclusions that arise from natural laws must be verifiable (the gold standard of science), and pre-Big Bang hypotheses such as pre-Big Bang quantum fluctuations

and multidimensional membranes are currently not verifiable. Thus, at this time, all pre-Big Bang notions from science are much closer to religion than science in the sense that, like religion, they are not verifiable. However, there is a tendency among modern astrophysicists to look with favor upon hypotheses that have sound mathematics, such as string theory, even though the hypotheses might not actually be accepted.

Because God made the Universe and its laws of nature, science, being the study of God's laws of nature, is the study of God's word although that notion will cause all scientists to cringe. Science withdraws from any discussion about God because the supernatural is not verifiable, an unalterable requirement of science. However, Rabbi Aryeh Kaplan, in his *Handbook of Jewish Thought*, wrote "If one is able, he should learn enough science to be able to recognize the world as the work of God and comprehend His greatness, as the prophet declares, 'Lift up your eyes to the stars and see Who has created them.'" (*Isaiah* 40: 26). Science, not the scribblings of ancient people, reveals to us the word of God. Before becoming a Rabbi, Kaplan was a scientist at the National Bureau of Standards.

The belief (which is only an opinion) posited in these pages is that the Big Bang was the act by which God made the Universe out of nothing. This is a viewpoint that many people have held long before these lines were written and, thus, is not new. Some writers like to add the Latin phrase *ex nihilo* for "out of nothing". It often appears in conjunction with the concept of creation, as in *creatio ex nihilo*, meaning 'creation out of nothing'.

Ever since, eons ago, men first thought spirits to exist, the focus of religion has been the supposed relationship between God and people. Contradictorily, the focus in these pages is solely on God. Human beings, like birds and butterflies, are an evolved life form and have no special relationship with God. This is why religion steadfastly refuses to accept evolution. The creator's magnificent laws of nature have enabled us to exist, which is reason enough to worship God.

God is Perfect

Traditional religion readily accepts that God is perfect but has difficulty accepting the full implications of a perfect Diety. Part of God's perfection is the creation of a perfect Universe, which includes perfect laws and perfect processes of nature. These pages take God's perfection to places most people are unprepared to go.

The Universe is Perfect

The view here is that God is perfect and, thus, has made a perfect Universe whether or not we like it and whether it favors us or not. Evolution is among God's perfect processes of nature; it's a divine process. As mentioned previously, evolution is merely the process of God's perfect laws of nature acting on biologic systems. It's as natural and fundamental as gravity. *Homo sapiens* has a three billion year evolutionary history of struggle

and successful adaptation to an ever changing and often hostile world. It is a noble history, a history of unending triumph or we wouldn't be here. Human beings are an evolved species that happens to have the privilege of being the only species in Earth's history to be able to recognize that God exists.

Although we are a marvel, we can not fully comprehend the perfection of the Universe because it is the creation of infinite wisdom and we are merely part of lowly creation. How can a part understand the whole? But as one of the marvels of creation, we can comprehend some of it.

At its smallest, most basic level, the level of atoms and subatomic particles, the Universe is a random process. At macroscopic scales, the Universe is the average of these random processes and becomes largely predictable, such as the orbits of planets around stars although Chaos Theory suggests an element of randomness in the macroscopic Universe. At the molecular level it's still largely random. For example, cancer is a random mutation of DNA, which is at the level of molecules as described in the Appendix - Chemistry of Life. That the Universe is a random process is why bad things happen to good people. It's a fundamental characteristic of nature, of God's laws. There's nothing mysterious about it.

God Does Not Control the Universe

Once Divine creation of the Universe has been asserted, these pages part company with other theistic beliefs. For example, these pages assert that God "chooses" to not influence the unfolding of the Universe other than indirectly through the laws of nature. The belief here is that God is perfect and, thus, created a perfect Universe with perfect laws of nature that make the natural, unassisted, unfolding of the Universe perfect, and it's impossible to improve on perfection. That the Almighty doesn't dabble with the Universe is not a sign of neglect, benign or otherwise, but a recognition that it's perfect and nothing more need be done, nor should it be. To believe that God influences the Universe is to insult the perfection that is both the Creator and creation.

However, we humans, in our arrogance, think we know better than God how God's perfect creation should unfold, that events should occur the way we think would be best, that loved ones should live rather than die, for example. We hypothesize that God controls the Universe although the reality of the Universe, such as Hitler's holocaust, makes it impossible to understand why God allows such evil to exist. The "problem of evil" has been a stumbling block ever since religion was first conceived. Believing that God continues to influence the unfolding of the Universe leaves us unable to explain events that are outside our preconceived notions, such as why bad things happen to good people or why "good deeds never go unpunished," for example. Faced with the dilemma of a loving God controlling an obviously "unjust" Universe, we create a complex God Who loves us but must sometimes punish us like a parent must punish an unruly child, ascribing to a perfect Deity characteristics of imperfect humans. We attribute the incon-

gruity of an "unjust", though perfect, Universe to the mysteries of an unknowable God, which explains nothing. We believe we know God stuff when it suits us and, contrarily, don't know God stuff when that suits us; we pick and choose.

The truth is much simpler: a perfect Creator created this perfect Universe that must necessarily be a little random to keep it from being trivial. A completely predictable universe is a trivial universe because there's no point in playing out events that are inevitable. Few, if any, will be able to accept that the Universe has a random component. We want there to be a logical cause to events, that bad things must be a result of some transgression against God. In ancient times, Jewish prophets always blamed the repeated subjugation the Jews experienced on their backsliding from worship of their God. There must always be a reason. But in a random universe there isn't always a reason. Things sometimes just happen. Sometimes people just develop cancer.

The desire we humans express through our religion that the Universe unfold in the way we see fit is an expression of egocentric human folly. But, fortunately, we are not God (we would make terrible gods), and the Universe proceeds in its own way regardless of our wishes. Whatever happens in the Universe, whether for our personal good or ill, is right and good whether or not we recognize it as such. To accept that is to truly submit to God in a way beyond what Muslims can understand or accept.

The comforting suggestion that God continues to influence the unfolding of the Universe is to suggest that a perfect Deity does imperfect work or, perhaps, plays with 'His' creation and is an insult to the Almighty, although many people do seem to find fault with God's creation and blame the Deity for their misfortunes. To be fair, most of these people probably merely want more peace and love in the Universe, and for the lion to lie down with the lamb. Though those are noble-sounding sentiments, they're inconsistent with God's perfect laws of nature, that lions must eat lambs. If we view the laws of nature as faulty, that the lamb won't get much sleep if the lion lies down with it, it's simply because we're ignorant of God stuff and its bigger picture.

Some people are encouraged that God influences the Universe by events they consider to be miracles; the rescue of one seeming to face certain death or the survival of a person seemingly bound to die from illness or injury are the most common examples. Such events are not miracles at all but are actually nothing more than occurrences that have a very low, but real, probability. Our knowledge of the state of things, though excellent, is imperfect, and predicting the future based on imperfect knowledge of situations such as rescue or survival of injury or illness is an uncertain art at best. People choose to maintain that such events are miracles because it's comforting to believe that the Supreme Being is interested in us enough to help. Miracles are actually events that are impossible, not merely improbable, under the laws of nature such as people being able to fly simply by flapping their arms. Miracles defy space-time-energy-matter natural laws.

That God does not influence the Universe is not a new idea; it can be traced back to the ancient Greeks. In some of the few surviving fragments of his writings, Xenophanes of Colophon (c. 570 BCE to c. 475 BCE) maintained that God does not intervene in human affairs. Aristotle believed in a Prime Mover that had set creation going but was not connected to or interested in it (a prime mover unmoved in philosophical jargon). The obvious corollary to this point of view is that The Great Spirit does not speak to people as all religions aver: the Vedas were not revealed to ancient sages by Brahman; God did not speak to Adam, Noah, or Moses; the Lord did not stand over Samuel; angels did not speak to Abraham, Muhammad, or Joseph Smith. This is a point of extremely intense disagreement between these pages and all religions throughout the world. Religions make these claims without proof; we are required to simply trust that the claimants speak true. However, the notorious duplicity of the human race makes such blind faith in our fellow man a perilous thing. Doubtless, religions have good intentions, but mankind's ubiquitous intolerance and proclivity to violence make unproved revelations a path to hell rather than a stairway to heaven. The only truth is what the Universe (God's word) tells us; it's truth that's not a secret told to or held by a privileged few, but one that anyone can find any time, any place; it's open to all.

The Essence of God

In their constant assessment of the divine by human measure, the ancients saw their gods as a flawed lot; they were made in man's image. It was the supreme gift of Abraham to see God as flawless and to posit that man is made in God's image rather than picturing the gods in human form and with human appetites like Zeus-Jupiter and his court. Thus, Abraham's gift had the immeasurable value of encouraging humankind to improve themselves and be worthy of the image of God although religion's success at this is marginal at best. Overcoming primitive drives evolved over 3 billion years is difficult.

Over the eons of our ascent from rutting ignorance to something akin to intelligence, humanity's view of the Creator has evolved from spirits of the forest through a brief flirtation with anthropomorphic and other animate forms to an ineffable spirit. However, attempts to visualize, like Michelangelo's old man on the ceiling of the Sistine Chapel, that which is not measurable by space and time are foolish. How can one visualize a thought or love? It's a measure of the ancient's lack of intellect and imagination that they even considered the effort worth pursuing.

Although the ancients, from Egyptians to Aztecs, made images of what their gods were like, recorded speculations about the nature of the ineffable, spiritual God only go back to the Greeks. Xenophanes of Colophon maintained there was one greatest God ("greatest" implying the existence of other gods), an eternal being, comprehending all things within himself, the absolute mind and thought, and bearing no resemblance to human nature either in body or mind. Aristotle disagreed with the majority of

Greeks that their polytheistic deities existed because he could not find enough empirical evidence for them. He believed in a Prime Mover that had set creation going but was not connected to or interested in it.

From the time of Abraham, God has been considered by many to be a spirit without flesh and bones. Christ suggested this when He appeared to His apostles after His resurrection: "Behold my hands and my feet, that it is I myself: handle me, and see; for a spirit hath not flesh and bones, as ye see me have." (Luke 24:39, KJV) Some people have trouble with the idea that God doesn't exist in time and space (i.e., has no form) because it interferes with their need for a God that's interested in them personally. Thus, anthropomorphic descriptions of God persist in holy books, including a voice that speaks a familiar language as when Moses encountered the burning bush although many religious leaders believe that such manifestations are merely forms an ineffable spirit assumes for the convenience of humans.

Reference to God is customarily in terms of masculine imagery and grammar. However, Rabbi Aryeh Kaplan in his *The Aryeh Kaplan Reader* wrote, "The fact that we always refer to God as 'He' is also not meant to imply that the concept of sex or gender applies to God." However, classical western philosophy refers to God in most contexts as masculine in consideration of traits given to God that are typically male such as highest authority and power and the ability to design and construct complex physical structures. Referring to God as masculine is merely a convenience and reflects our ignorance-of God stuff because the Great Spirit is no more male or female than a mist is. In fact, a mist might be the best way to picture God if one finds an image of God is necessary although even that is doubtless grossly in error. God is probably more like pure love, which can not be pictured at all.

The Jewish prophets attempted to describe the traits of Abraham's God as in Jeremiah 9:24 "...I am the LORD which exercise lovingkindness, judgment, and righteousness, in the earth: ..." (KJV). The Westminster Shorter Catechism of the Orthodox Presbyterian Church defines God by simply enumerating 'His' attributes: "God is a Spirit, infinite, eternal, and unchangeable in his [sic] being, wisdom, power, holiness, justice, goodness, and truth." There have been many other attempts to describe the attributes of God, all of which doubtless fall far short of the ineffable Deity because they're human traits and God is far, far beyond us humans.

These are noble, though misguided, efforts at attributing to the Great Spirit the best, the most outstanding, the most desirable descriptions we poor humans can imagine such as wisdom, power, justice, truth, and goodness, but they still dimension God in human terms and, thus, limit the Almighty. The language of God (if there is such a thing) must be used to describe the ineffable, infinite Creator. There are probably no words in all the languages on Earth that can enumerate the traits of a Creator who is beyond our understanding and, thus, beyond description. Because no one knows God stuff, it is impossible to say that these enumerations are not at

least partly true, but all of them seem to limit the infinite. Victor Hugo said as much: "Religions do a useful thing: they narrow God to the limits of man." Though useful in human terms, its virtue in absolute terms is dubious. However, many people feel that such anthropomorphic descriptions, however imperfect, nevertheless reveal something about God if only to an infinitesimally small degree.

As previously mentioned, many people have trouble worshiping an invisible and somewhat abstract Great Spirit. Hinduism is replete with corporeal representations of their gods. Much of the *Tanakh* is the story of the Jews' struggle to worship an unseen God. While Moses was on the mountain receiving the Ten Commandments, the people prevailed upon Aaron to make them a god that they could see and touch and, thus, understand, so he made a golden calf for them. Even after they had settled in the promised land, they were often lured away from their spirit God by seductive graven images of Baal. Only the long and bitter torment of repeated subjugation at the hands of their enemies convinced the Jews to worship their unseen God.

God is a spirit and can't be described by space and time. After all, God created space and time and must, therefore, be superior to them, but we seldom, and perhaps can not, really understand what that means. We can't even say that God has always existed or that God has no beginning because, although we're trying our best to acknowledge the superiority of the Deity, those ideas still imply that God exists in time or that time has some sort of bearing on God. It doesn't. So our best is not good enough. Neither is Heaven, the Deity's 'home', a place. It's probably best described as the state of spiritual existence. We can not legitimately say anything at all about God's existence except that the Great Spirit exists because the issue is far beyond our ability to understand though many of us are arrogant enough to think they can. We are space-time-energy-matter creatures trying to speak about something that's not describable by space, time, energy, or matter, something that's totally beyond anything with which we're familiar and thus can relate to, beyond anything we know.

That a space-time-energy-matter Universe can coexist with a Deity Who is beyond those bounds (that time can exist 'simultaneously' with not-time and space 'simultaneously' with nospace) is a miracle of God stuff and far, far beyond our understanding and the ability of philosophers to reconcile. Our meager space-time-energy-matter minds can not wrap itself around such apparent oxymorons, but such is the conundrum of miracles. As mentioned previously, they defy space-time-energy-matter natural laws.

The view of God posited in these pages is that God, Who is independent of time, does not tamper with a Universe that exists in time, not because the timeless Almighty can't cross into time (after all, God's power is unlimited), but because the Universe as it was created 13.77 billion years ago is perfect and exactly what the Creator intended it to be. Billions of people will strongly object to this view, which goes back to Xenophanes and Aristotle, because it places God much more remote from us than other views do. This

removal of God from the operation of the Universe is the prime classic objection to an uncontrolled, or open-loop, Universe. An additional objection is that such a clockwork universe is completely predictable and gives no room to free will although some Christians such as John Calvin imply a limitation to free will by suggesting that the elect are predestined to be saved even prior to the Universe's creation.

These pages promote a radically different view of God than that of traditional religions and of common views of the relationship between the Almighty and humanity. Because these viewpoints are not comforting, no advice is implied here that they should be adopted by others. They're merely given as the truth—at least as much truth as we poor humans can understand.

God created the Universe approximately 13.77 billion years ago. God created space, time, energy/matter, and the laws of nature. Thus, though scientists cringe at the notion, the laws of nature are the true word of the Almighty, and anything that contradicts them is false. Science and the scientific method are the only way to understand natural laws (i.e., the word of God) because the scientific method is the best way yet found to separate truth from opinion.

God and People

The first eleven chapters of this work detail truths of the Universe. They are truths because they all are independently verifiable. This chapter, on the other hand, is a record of what the truths of the first eleven chapters imply and contains more inference than verifiable truth. This chapter carries no suggestion that its inferences, however consistent with God's laws of nature (which is the only valid criteria of goodness), are flawless. We are, after all, moving far into a region of the unknown and unknowable.

The view of these pages is that we humans are merely an evolved form of life whose evolution happens to enable the understanding that an infinitely powerful and, thus infinitely remote, Creator exists. As an evolved form of life like worms and lions, it would be most consistent with our status as infinitely inferior to the Almighty if human beings would approach God with humility rather than pride. Thus, it would be most consistent with our status as infinitely inferior to the Almighty if human beings would always praise and never ask anything of the Deity:

O Great Spirit, Creator of all that is, of time and space and absolute law. I am nothing in your knowing an evolved carbon-based life form inhabiting the third rock from an undistinguished G class star in a large spiral galaxy that's part of a small Local Group in the giant Virgo Supercluster somewhere in Your unfathomably vast creation. My only only virtue is that I know You exist. Beyond that, I am nothing—a worm, a virus, a nothing. You are all the truth, all the reality there is. You are great beyond all greatness; to try to describe Your greatness is to insult You. You are beyond all understanding. Words and thoughts mean nothing; my life is my act of worship. I am grateful beyond all telling that Your magnificent cre-

ation has allowed life to exist and that of all the life that has ever existed on Earth, mere chance has given me the rare privilege of knowing You exist. Only a fortunate few life forms in the Universe can experience that privilege. Beyond that knowing, I am nothing; a worm, a stone, a nothing.

We all talk humility in the presence of God, but we don't really understand or accept what that means. We are a marvel. Our ancestry goes back more than 3 billion years (over 1.1 trillion days). For each of those 1.1 trillion days, our ancestors fought battles to survive. And they won every battle or we wouldn't be here. They were gladiators in an arena where, when you lost, you lost forever. We are on a winning streak that goes back over 1.1 trillion days. We are winners. We are undefeated in the great big game of life—so far. In spite of the marvel that is us, we are still insignificant compared with the infinity that is God. That's not denigrating us; it's praising God. No matter how great or large something is, it is still nothing compared with infinity. Perhaps it's impossible for humans to be properly humble even in the presence of an infinitely superior God. That's probably a side effect of three billion years of evolution of the instinct for self preservation, which is the ultimate expression of self.

Ever since the time of the Egyptian kings and perhaps before, people have longed for a pleasant life after death. This is simply an expression of the natural instinct for self preservation; we want life to go on and on. But whether or not life continues in some form after death or whether oblivion awaits us is strictly God stuff and beyond our understanding. If God so wills it, we will persist. If it is not God's will, no amount of pleading will bring it to be. True worship, true submission to God, is accepting that and glorifying God anyway. True worship is not glorifying God for what we might get out of it, but because it's the right thing to do. Unfortunately, humans as a species are not very good at doing something simply because it's the right thing to do. True religion is simply the worship of God. Period. Unfortunately, that's something very, very few people are prepared to do. This is the instinct for self preservation again: if it doesn't help me, I'm not going to do it. We are trapped by God's laws of nature, and it's doubtful that we will ever be able to escape that trap. After all, it's God's law.

Modern religion is an agglomeration of primitive beliefs (such as God will help us) that have been significantly refurbished in the millennia since our ancestors first conjured them. Modern religion retains from its primitive past its heavy emphasis on human beings, which is only natural because we're writing the books. With the exception of Judaism, the whole point of modern religions echo ancient Egyptian religion by seeking to ensure that worshipers can gain a pleasant eternal life after death. This is typified by the Catholic doctrine *nulla salus extra ecclesiam* (no salvation outside the [Catholic] Church). Thus, they're all religions of people and not of God at all. We worship God primarily as the way to get into Heaven.

Modern religions view God from the vantage point of our supposed special creation and concomitant special relationship with the Creator; God's

relationship with the rest of life and with the Universe is ignored. The virtue of this religious heritage is that it uses this supposed special relationship to give authority to instruction on the best way to live within a complex social structure that enhances the survivability of the *Homo sapiens* species even in the absence of the instincts of social species such as ants and bees (although bee hives and swarms of ants and termites are actually single families and not social organizations). This is an enormous virtue. However, contra-distinctively, the point of view in these pages centers on God and abjures our imagined special relationship with the Great Spirit.

The view here is that God is perfect, has made a perfect Universe whether or not we like it and it favor us or not, and that human beings are privileged to be the only species in Earth's history to recognize that God exists.

Because evolution is simply God's laws of nature acting on biologic systems, it is a natural, divine process. To deny evolution is to deny God. The irony of those who deny evolution is that, all the while they deny it, they're caught in its grip. All life is the result of the natural, divine process of evolution. Neither Human beings nor any other form of life were specifically created by the Almighty.

God is ineffable. Perhaps the best way to imagine God is as pure love. However, the intricate brilliance of the Universe makes it hard to avoid thinking of the Creator as intelligent, and it's difficult for mere mortals to imagine a spirit not describable by space and time yet Who is infinitely intelligent. That's God stuff and beyond our understanding.

Good and evil are not properties of the Universe and, thus, have no independent existence. There is no Satan; there is only God. Good and evil are merely names people have given to actions that either benefit or harm individuals or *Homo sapiens* in general and, as traditionally used, are concepts that are the product of false traditional religion and philosophy. To ask why God allows evil to exist is an irrelevant question and to have to ask it tells us that traditional religion and philosophy are false. Nevertheless good and evil, even as human constructs, are valuable criteria for evaluating the worth of individuals and groups according to their propensity to benefit or harm individuals or *Homo sapiens*.

Perhaps God does love us in some supernatural way. After all, as part of the Universe, we are God's creation, if not directly and explicitly, at least indirectly through God's perfect laws of nature. There's something different about the collection of carbon, hydrogen, nitrogen, phosphorous, iron, and calcium that is us compared with the same elements gathered in a box; call it a soul. God's view is most likely that whatever evil befalls us during our life, however agonizing to us, is trivial in the big picture. What matters a few decades of mortality compared with eternity thereafter? But this is God stuff and impossible to know until we die, so dwelling on it throughout our lifetime is pointless except, perhaps, as a game as long as we recognize it as such.

It is enough to worship God by living our lives according to God's magnificent laws of nature, which means preservation of the species is first

priority although the question of how to do that in Earth's complex biosphere has no obvious answer. In our worship of God, whatever we do must help in some way to preserve *Homo sapiens*; this view has very complex and wide-ranging implications such as punishment for criminal behavior. We worship God, not by mumbled words and occasional gestures, but by living our lives according God's laws. To worship, like Job, a seemingly remote, uncaring God Who gives neither aid nor comfort during a time of calamity is the greatest, the purist worship of all.

Although these pages profess no knowledge of God stuff and few beliefs about God, they hold fast to the hope that God gives us life after death, but it's merely hope without expectation. Hope is the wellspring of happiness, and hope for loved ones is the greatest happiness of all.

The Essence of this Work

In the beginning there was no beginning because the Great Spirit had not yet created time. There was only God. That there can be existence without time is God-stuff and a thing we humans can not understand except that it is. Then God created space, time, energy, matter, and laws of nature to bind them together. This creation, like its Creator, is perfect. The Creator does not meddle with creation because it is perfect and, thus, can not be improved. Human beings are an accidental result of God's perfect laws of nature acting on biologic systems. Human beings are blessed to be able to understand that the Creator exists but this blessing does not extend to understanding any other aspect of the Deity because we are space-time-energy-matter beings and the Deity is greater than those things. God-stuff is far, far beyond our comprehension. We understand less about God-stuff than our pets do about the complexities of our lives. That does not denigrate humankind but glorifies God.

We widely believe that God created the Universe with a Big Bang (its space, time, energy, matter, and the magnificent laws of nature that bind them all together). Those laws of nature are the precise word of God. The mission of science is to discover and study those natural laws using a particular method that's designed to reveal them accurately. Thus, the mission of science is to find and understand the word of God. The greatest worship we can offer God is to study the word of God and understand it to the best of our ability. This is a difficult task; after all, God is the ultimate 'intelligence' in existence. But the effort is rewarded with a view of God that perfectly compliments the sweep and grandeur of the visible Universe: the delicate beauty of a flower, the graceful power of a waterfall, the drama of an approaching thunderstorm, the serenity of a sunset from a tropical beach, the glory of a distant galaxy. To know a little of God's laws is rather like discovering that Miss America is intellectually gifted as well as beautiful: a complete person.

These pages do not suggest that anyone should study science, but they do describe the reward for doing so. Science reveals, though we imperfectly understand it, a greatness of God that goes far beyond mindless

sloganeering of "Allahu Akbar" or the warm feeling of "loving" the infinite. Our understanding of God, though necessarily far, far from complete, becomes closer to the wonder that is the Infinite Being. To understand a little of God's word leaves us awed in the extreme because we know there is more to know than we can possibly imagine, knowledge that will probably be forever beyond our reach.

The greatest belief of these pages is that people have a spirit growing inside of them like a butterfly in a cocoon, and the meaning of life is to make our butterfly as beautiful as we can. This spirit is eternal, and only the eternal matters. Thus, whatever we do in this Universe, whether it be CEO of a corporation or emperor of the World or writing these lines, is meaningless vanity unless it makes our butterfly more beautiful.

It's really quite simple: honor the Creator by learning as much as possible about 'His' creation and worship the creator without expecting anything for it but just because it's the right thing to do. Alas, few can do those things.