

## A SECULARIST HISTORY OF WESTERN CIVILIZATION

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The "exceptionalist" praise of western civilization's unique accomplishment deserves careful reexamination in light of major achievements elsewhere in the world. Non-western innovations such as the Pyramids and Great Wall of China deserve our fullest admiration, as do Babylonian and Chaldean astronomy, the Egyptian calendar, the Phoenician alphabet, and the invention of the decimal system by Indian mathematicians. Also invaluable have been paper, printing, gunpowder, inoculation, and the wheel and compass, as well as pottery, metallurgy, weaving, and agricultural technology developed by the early civilizations of China, India, Mesopotamia, and the Nile. These innovations have been of substantial importance, and it cannot be ignored that they were all products of non-western societies.

Today, however, too much of the non-western world is dominated by traditionalist custom as well as excessive levels of corruption, stagnation and economic hardship. Rigid belief prevails, and as a result innovation is discouraged at almost every level of human endeavor. Significant improvements are almost impossible to implement for coping with chronic difficulties linked with population explosion (an indirect outcome of western medical advances), unfavorable trade relations with western nations, and mounting financial obligations enforced by embargoes and military intervention when these obligations cannot be met. Not surprisingly, substantial numbers live and die in poverty without the opportunity to improve their lives, much less the future prospects of their children.

In contrast western civilization thrives, relatively speaking. Its shared socio-economic order supports a large and productive middle class and has fostered a cumulative intellectual tradition illustrated by the remarkable genius of people like Plato, Aristotle, Michelangelo, Shakespeare, Newton, Bach, Mozart, Voltaire, Kant, Tolstoy, Darwin, and, more recently, Einstein, Picasso, and Bertrand Russell. For the most part this tradition derives from relatively high levels of affluence, secular freedom, social mobility, and democratic participation. Western nations have more or less effectively sustained this situation despite their frequent misuse of their military and economic superiority, despite their tendency to squander their resources and contaminate their environment.

The most obvious source of western civilization's economic advantage can be traced to its many discoveries in science and science-based technology. Lest we forget, these include electricity, internal combustion, automobiles, microscopes, telescopes, cameras, the railroad, airplanes, space travel, and, as by-products of electricity, the telephone, radio, television, computers, fax and Xerox machines, and, not to be underestimated, the remarkable and ubiquitous light bulb. Not to omit the thresher, sewing machine, and mechanical printing press--also nuclear energy, everything steel, and everything plastic. Recombinant genetics, advanced medications, and amazingly sophisticated medical technology likewise deserve mention. When it comes to warfare, as demonstrated in Kosovo, Afghanistan, and Iraq, our military forces use laser-guided aerial weaponry coordinated by space satellites and unmanned aircraft, thus maximizing a favorable casualty ratio, at least preceding the occupation of nations we conquer.

And once occupation follows, our military leadership can presumably minimize troop deployment by "gitmoizing" the interrogation of prisoners in order to enhance the accuracy of military intelligence. If this turns out to be counterproductive, as it has, there are numerous experts and pundits who can explain why.

In a more positive light, western civilization has also produced substantial social benefits, which include adequate wages, compulsory education at primary and secondary levels, and access to thousands of junior colleges, colleges and universities. The great majority of our population is guaranteed decent health coverage, adequate retirement benefits, and both equal opportunity and affirmative guidelines to redress unfair bias. We have access to countless books, journals, and newspapers as well as incessant radio and TV programming and a multitude of computer internet sites with a surplus of information relevant to any topic. And of course we can depend on running water, plumbing, and the modern flush toilet additional to kitchen and laundry appliances, central air conditioning, and CD, VCR and DVD players that give us access to an almost limitless variety of music and movies. Many of these advances have cheapened our lives, but, all in all, they have produced substantial advantages that would have been inconceivable just a few decades ago.

I would propose that the ordinary retractable ball-point pen perhaps best illustrates western civilization's debt to science and science-based technology. Its ingenious design culminates many centuries of research and development that are unique to our collective tradition. Its plastic casing is the product of modern chemistry, just as recent metallurgy has made possible its metal clip, chrome trim, and retractable ink stem inside a spiral spring for push-button ejection. Sophisticated machine-tool technology permits the manufacture of its steel ball assembly with sufficient precision for the ball to glide in its socket lubricated by ink--loose enough to roll this ink onto the page when pressure is exerted, yet tight enough to control its application. When the pen is lifted from the page, the ball is automatically pushed forward in its socket as a check valve, pressing against its rim to prevent leakage until the pen is once again put to use. The special ink used in ball-point pens both lubricates the ball in its socket and dries almost immediately when applied, but without clotting when the pen is out of use.

Advanced industrial technology has also been essential for the commercial development of the ball-point pen. Machinery is brought into play at every phase of production, of course regulated by the use of electricity, and now even computers are needed to maximize assembly-line efficiency. Earlier advances in physics and chemistry were needed to make this level of technology possible, and, earlier yet, secular philosophy was needed to justify the pursuit of scientific inquiry despite the persistent opposition of orthodox traditionalists. Also important were a reliable labor market, a financial infrastructure to subsidize both factories and the marketing of their products, and, not least, stable democratic institutions supportive of an industrial economy. And finally universal education has been needed to guarantee a sufficient number of literate purchasers able and willing to put indelible ink to the page. All these preconditions converge in the ball-point pen that can be used until dry, then tossed aside without a second thought. It is because of this remarkable synergy of accomplishments that a qualified exceptionalist assessment is justified that differentiates western civilization from all other cultures and civilizations. For our civilization does in fact offer more benefits--enough, in fact to

anticipate its increasingly rapid adoption by competitive non-western societies, most notably Japan, China and India.

## 2. The Origin of Western Civilization

How did western civilization develop both science and science-based technology as well as democracy and advanced financial institutions? To explain this broad package as a singular achievement, one must take into account many historic variables, most of which can be traced to cumulative secular trends that began in ancient Greece. For it was Greece alone that set in motion a remarkable sequence of innovations that constitute the essential history of western civilization. This process began with a major economic breakthrough resulting from systematic colonization, but quickly expanded to bear significant social and intellectual consequences. When Greek city states were confronted with agricultural shortages in the eighth and seventh centuries, B.C., many responded by sponsoring the creation of colonies on the coastline of the Aegean and Black Seas as well as the Mediterranean Sea beyond Massalia (now Marseilles) to Emporiae on the coast of Spain. The double objective was to reduce the population of "mother cities" while acquiring sufficient grain from the various colonies to be able to support those who remained in these mother cities. In order to balance imports (primarily, but not entirely consisting of grain), merchants also traded in minerals, manufactured goods, weapons, and the few agricultural commodities--especially grapes and olive oil--that could be grown in their own relatively infertile soil. Limited by its agrarian deficiencies, Greece thus became what can be described as a thalassocracy (government dependent on the sea) with a thriving mercantile economy similar to that of the Phoenicians, who already dominated trade routes along the southern shores of the Mediterranean.

Pre-Hellenic agrarian civilizations such as Egypt, Mesopotamia, and the Indus and Yangtze valleys had thrived on an entirely different basis. Situated on fertile river plains rather than coastline at the edge of the sea, they depended on a strictly agrarian economy with traditional authority that featured a fixed social hierarchy led by kings and aristocrats. The worship of fertility gods was emphasized that depended on human, then animal sacrifices to guarantee a successful harvest. An established priesthood also played an important role, as did customs and laws supportive of agrarian utility and the perpetuation of the status quo. In contrast, as already indicated, Greek city states came into existence based on an entirely different economic plan resulting from their relatively sparse agricultural resources. In order to survive, they needed to abandon traditional constraints for a more flexible social arrangement that accommodated greater social and geographical mobility. As a result, a mercantile strategy emerged that featured trade in order to obtain food products from agrarian economies in exchange for manufactured products such as armor and maritime products. Colonies were needed as well as cooperative agrarian societies nearby with whom trade could be organized through the agency of these colonies. In effect the basic economic productivity of more primitive cultures could be harnessed in order to augment profitability for traders able to travel among communities with complementary needs, but primarily, as already indicated, between mother city states in need of grain and distant societies able to provide this grain and in need of products not otherwise available.

Greek shipping took a dominant role in the eastern end of the Mediterranean region once the Greek navy defeated Xerxes' Phoenician fleet at the battle of Salamis in 480 B.C. Essential to this success were financial innovations that became possible upon the invention of coinage in Lydia during the seventh century, B.C. Once money could be coined and put in circulation by the government, it was possible for a rapid emergence of a complex economy superior to the outdated barter system doggedly employed by the Phoenicians. Suddenly banks, investments, insurance, small factories featuring export products, and even the problems of usury and inflation came into existence. Immigrants flocked to Greek cities, especially Athens, whose silver mines enabled it to dominate the money supply and whose port facilities at Piraeus just four miles away gave it a central role in Aegean trade. An immigrant "middle" class described as Metics gathered in Athens and other major cities, providing artists, artisans, and philosophers as well as merchants and their bankers. Another byproduct of this economic breakthrough seems to have been Athenian democracy, limited to citizens, which first established the precedent for popular assemblies, anticipating the emergence of parliamentary democracy in England and the American constitutional experiment that provided a useful model for more recent democracies over the last two centuries.

Perhaps unexpectedly, there was a substantial accumulation and redistribution of wealth that provided leisure to a much larger component of the population than before. Slaves who worked at the silver mines were horribly mistreated, but other slaves enjoyed relative freedom, some of them with relative success. Two of Athens' wealthiest bankers, for example, were slaves. More important, the rapid accumulation of wealth by the Metics produced a new and talented class of individuals whose power resulted from trade and manufacturing rather than the possession of land. Also, many Greeks traveled extensively, encountering numerous customs and beliefs different from their own. As a result, Greece's cultural trends accelerated to an unprecedented level among ancient societies. Most important, traditional belief in the gods lost its earlier authority. Almost totally unprecedented in ancient history, secular philosophy took root--not in mainland Greece, but in several of its colonies, including Miletus, Ephesus and Abdera on the Aegean coastline, Syracuse and Akragas in Sicily, and Elea and Crotona on the coast of Italy. All of these colonies may be described as having been far closer to the cutting edge in the mercantile revolution that was taking place than their mother cities located in mainland Greece. It may accordingly be speculated that religious custom lost its central importance resulting from this basic transition from agrarian tradition to a mercantile economy, and, not surprisingly, with even greater impact in the outlying colonies than the mother city states. It may be further speculated that just as maritime needs and practices superseded established agrarian practices in these colonies, secular philosophy displaced religion among citizens able and willing to risk its speculative freedom.

Later stages in the advancement of Western civilization have similarly benefited from Europe's unique topographical arrangement of mountain ranges and defensible coastline, permitting a healthy balance between local independence and foreign accessibility. Just as Greece thrived as a mountainous peninsula with a jagged coastline, so too did Europe as a whole. Greek city states had been blessed with this advantage, and the same applied on a more inclusive scale with the separate but proximate cultures of modern Europe. Such nations as Italy, Spain, England, and, to a lesser extent, Germany and France, were well enough isolated from each other to be able to develop their own practices and institutions, yet with sufficient mutual access for

cultural diffusion to have occurred with relative ease. As among the Greek city states, there was of course lots of hostile conflict, but more important in the long run was the cultural diffusion that stirred innovation at an accelerated level. This unique geographical arrangement permitted the leapfrog progress of western civilization from one cosmopolitan epicenter to the next--from Greece to Rome to Spain, back again to Rome, then to Paris, then London, then Berlin and the United States (the latter despite temporary competition from the Soviet Union). The succession of economic hegemony from one "golden age" to the next, each of them superseded by another, and yet another, has guaranteed western civilization's cumulative achievement despite the decline of any particular society.

The period of secular intellectual achievement in ancient Greece lasted over five hundred years from Thales to Strato and Carneades. This inspired comparable results in Alexandria from Aristarchus to Ptolemy and Plotinus (though the latter two were hardly secularists), and the combined achievement of Athens and Alexandria did the same for Rome from Cicero to Marcus Aurelius, then medieval Arab civilization from al-Kindi to Averroes. Next came Renaissance Italy from Petrarch to Galileo, then the French Enlightenment from Bayle to Voltaire and Rousseau, and still later the nineteenth century period of German high achievement from Kant to Einstein. England produced at least a couple golden ages, including an elongated Renaissance from More to Shakespeare and Bacon, and later a relatively brief Victorian period from Darwin to Bertrand Russell. As the current hegemonic epicenter of western civilization, the United States seems to have enjoyed a similar period of cosmopolitan achievement since the Civil War with a unique cultural heritage from Emerson and Thoreau to, say, Bellow and Chomsky. Circumstances favorable to this trend in the United States included a flexible system of government and of course an entire virgin continent to be exploited without effective resistance by its native American population.

The importance of social and economic factors cannot be denied, but I want to emphasize that the primary reason for western civilization's unrivaled achievement derives from its history of intellectual freedom relatively unhindered by religious orthodoxy compared to other cultures and civilizations. At the very beginning economic advances set the stage for intellectual advances, but as western civilization continued to expand across the face of Europe, intellectual advances became at least as important in promoting innovation. The cause-and-effect relationship actually reversed itself. As already indicated, this shift in emphasis began in ancient Greece with the rejection of Homeric gods by a thriving community of Greek philosophers. Only Xenophanes and Heraclitus were explicit in their condemnation of Homer, but all the rest obviously shared their opinion. And soon enough the rejection of Homer extended to all orthodox belief, first articulated by the so-called Sophists during the Age of Pericles, later by the skeptics of the Academic School, most notably Arcesilaus and Carneades. For in fact the ability to suspend judgment without succumbing to mythology and orthodox belief was very probably the single most compelling accomplishment of ancient Greece, and this as much as anything provided the foundation for everything that followed in European tradition, limiting the orthodox demands of Judeo-Christian tradition to an essentially inhibitive role.

Erich Auerbach and others have suggested a more balanced dialectic interplay between Greek and Hebraic perspectives in providing the dominant conflict at the root of western civilization. Their analysis gave preference to the Judeo-Christian tradition because of its

emphasis upon the unspoken and mysterious depth of religious truth as opposed to Hellenism's relatively superficial delight in physical existence. They praised the Greek mind's restless commitment to analysis, complexity, and foregrounding, but expressed their preference for the more basic pursuit of moral and psychological profundity crucial to the Judeo-Christian imagination. Auerbach's thesis bears fascinating implications, but it is flawed in having equated Judeo-Christian belief with an aggressive insistence on the principle of truth. Apparently his assumption has been that the passionate commitment to Christianity as a belief system confirms its validity--which it does not, as demonstrated by the large variety of differences among Christian sects and denominations, each of which is aggressively committed to the hallowed verities linked with its own particular dogma. But if some are "right," others must be wrong, and sorting out this difference necessitates a dispassionate objective examination to which most Christian believers are unwilling to submit. Whereas Judeo-Christian tradition encourages credulous belief based on the confidence that its particular "truths" are self-evident, its Hellenic opposite dependent on skepticism emphasizes persistent inquiry unfettered by fixed expectations. Truth can perhaps be established on an acceptably verifiable basis, but, whether or not this is possible, free inquiry is always and without exception justified toward the best and most accurate truths.

More particularly, Judeo-Christian faith emphasizes a final truth revealed in a sacred text, the Bible, whereas Greek secularism features a heuristic methodology that determines the validity of any particular idea or theory by consulting a plenitude of sources, arguments, and relevant empirical evidence. Moses supposedly obtained the Ten Commandments from God at the top of Mount Sinai, quite aside from their obvious indebtedness to the much earlier Code of Hammurabi as well as their reduction of ethics to the use of ten fingers as a mnemonic convenience, murder (finger six, perhaps the thumb) having been no more sinful than disrespect for one's parents (finger five, perhaps the other thumb). Moreover, various acts of hostility--even, for example physical assault and the willful destruction of property--were permissible as long as they fell short of murder. This crude assortment of rules, all of them inhibitive, was to be obeyed without question by the Jewish community, presumably God's "chosen" people, proof of which was their willingness to accept such an ethics as God's final word. In contrast, open-minded speculation characterized Greek thinking, as exemplified by Plato's dialogues, Aristotle's frequent citation of alternative arguments before launching into his own, and the choruses (strophe and antistrophe) and rapid-fire arguments (stichomythia) at the heart of Greek tragedy and comedy, with dialogue--indeed, dialectic debate--necessarily preliminary to both truth and morality. Of course religion persisted in ancient Greece as exemplified by the Oracle at Delphi, the Eleusinian Mysteries, and the obsessive piety of Sophocles' tragedies. However, secular philosophy offered an entirely new ideological commitment that both asked and tentatively answered an entirely new assortment of questions.

This is not to deny the complementary value of Christian tradition later emphasized by Cardinal Newman, Irving Babbit, T.S. Eliot, Jacques Barzun, and countless others. However, as already indicated, western civilization's cumulative growth primarily results from a spirit of persistent inquiry that derives from Greek speculative freedom beginning five centuries before Christ. Since its very inception, Christianity has rejected this level of intellectual freedom, and its failure to obliterate its expression constitutes a massive defeat compared to the record of unequivocal religious conformity dominant elsewhere in the world. The Inquisition and less

murderous penalties later exacted against free thinkers have failed in the effort to suppress intellectual dissent. Surprisingly, however, this defeat has given rise to a far more challenging intellectual tradition than would otherwise have been possible. For even religion improves in response to secular theory, St. Augustine (with his first book, *Contra Academica*) having been inspired by the need to refute Carneades explained by Cicero, St. Thomas Aquinas by the need to refute Averroes, Descartes to refute Montaigne, Leibnitz to refute Spinoza, Kant to refute Hume, Bergson to refute Darwin, and Wittgenstein to refute Bertrand Russell. The elaborate and sometimes painfully intricate arguments that have been formulated toward this end are unmatched in non-western societies in terms of sophistication and intellectual challenge. And of course much the same may be said for the countervailing arguments by secularists, both those who have sought to accommodate religious belief and those who have pursued their inquiry as well as possible independent of its authority.

### 3. A Brief Sketch of Secular Tradition

Here it seems useful to provide a synoptic overview of western freethought beginning with ancient Greek materialism, when several dozen pre-Socratic philosophers challenged Homeric mythology by explaining the universe in strictly physical terms. The very first Greek philosopher known today, Thales of Miletus, suggested water as a liquid medium provided the basic principle (or *arche*) of the universe. Anaximenes substituted air, Pythagoras mathematical functions, Heraclitus fire constrained by logos (i.e., process by natural law), Parmenides a continuous whole, and, somewhat later, Leucippus and Democritus an infinitude of atoms in perpetual motion suspended in a void. Xenophanes suggested earth plus water, and Empedocles extended the total to include earth, water, air, and fire, all of which are brought into play by the complementary principles of love and hate (i.e., attraction and repulsion). Anaxagoras both complicated and simplified the model, suggesting an indeterminate variety of elements, yet a spiritual principle (*nous*, similar to *logos*) that resides in each particle. But it was Anaximander, student of Thales, who much earlier formulated the concept of *arche*, a single as yet unidentified substratum that explains the whole, anticipating Einstein's more recent pursuit of a unified field theory. Anaximander went on to describe such a principle as *apeiron* (the boundless), an assumption that remains defensible today in the field of cosmology. Anaximander also suggested a primitive theory of evolution that humanity evolved from earlier species of animals, and that animals evolved from moisture enclosed in bark, not too different from the modern hypothesis that life began with molecular cells capable of closed-surface metabolism. Four centuries before Christ, these pre-Socratic philosophers provided a remarkable assortment of theories that explained the material universe independent of supernatural authority. True, several of them mentioned the gods, and Xenophanes proposed the existence of a single god, but none conceded the dominant and persistently intrusive role of gods in Homer's epics.

With the defeat of Persia in the fifth century, B.C., Athens established itself as Greece's cosmopolitan epicenter, attracting numerous poets, artists, artisans, philosophers, and others engaged in creative and intellectual activities during the Age of Pericles. Philosophy shifted in emphasis from materialism to the issue of skepticism, which had been a peripheral concern among earlier materialist philosophers, for example Xenophanes and Heraclitus. Sophists such as Protagoras, Gorgias and Socrates applied skepticism to all issues with dazzling ingenuity based on the epistemological assumptions of Protagoras that man is the measure of all things and that

the existence of gods is too complex to determine except based on almost endless inquiry. Plato invented metaphysics to refute both materialism and skepticism by stretching Socrates' version of doubt, that he knew nothing except the fact of his own ignorance, to establish the priority of ideal forms that transcend the material universe. Aristotle thereupon invented science to reinstate materialism on a more sophisticated basis. He did this by exercising careful judgment--akin to skepticism--in analyzing numerous topics (mammals, virtue, tragedy, the syllogism, etc.) that were obviously imbedded in experienced reality, whatever their connection with ideal forms. Aristotle also speculated about an infinite universe both in time and space, reduced the god concept to the abstract principle of "unmoved mover," toyed with the possibility that the soul is strictly a function of the body, and redefined ethics based on the issue of moderation (the "golden mean," quite apart from the "golden rule" proposed by Thales and others preceding Christ). Finally came Strato, the third head of Aristotle's Lyceum, but also an outspoken atheist who refined science as the pursuit of pure induction by conducting physical experiments to test hypotheses without Aristotle's metaphysical baggage. He proposed the "Stratonician Presumption" that limited genuine knowledge to empirical data independent of transcendent considerations.

Strato's version of science was adopted by his disciples and followers in Alexandria, including Aristarchus, Eratosthenes, and Hiero. Democritus' version of atomism meanwhile persisted in the teachings of Epicurus and Lucretius, as did skepticism in the teachings of Pyrrho, Aenesidemus, and others identified as Pyrrhonians. This particular school of skepticism justified the pursuit of ataraxia (peace of mind) through the acceptance of whatever orthodox opinion prevailed at the time. The argument was simple enough: when with Stoics be a Stoic, when with Gnostics be a Gnostic, etc., for who is to say what is true in the final analysis? However, Academic skepticism, a competitive school named after Plato's Academy, which was inherited by its proponents, who totally rejected Plato's notion of ideal forms, offered an antithetical version of skepticism. Arcesilaus, Carneades, and others who took this approach emphasized the principles of *epoche* (suspension of judgment) and "tested probability." Arcesilaus borrowed the term *epoche* from Pyrrho, but with the understanding that such a suspension necessitates common sense (*eulogon*) instead of the opportunistic acceptance of any belief whatsoever. And Carneades--like Strato an outspoken atheist--borrowed the concept of probability from Plato and Aristotle but with the qualification that, in order to be accepted as probable, supposed truths must be both tested and found irreversible additional to the demands of common sense. Combined with the Stratonician Presumption, both concepts--of *epoche* and probability--anticipated the scientific methodology beginning with the Renaissance.

By the time of Cicero, ancient polytheistic worship fell into decline among the educated classes because of its obvious absurdity in light of skeptical analysis. The Emperor Augustus's effort to revive belief in Greco-Roman gods failed despite the success of Virgil's *The Aeneid*, written at Augustus's request. Various near-Eastern religions competed to fill the gap during the next few centuries. Among many other gods and goddesses worshipped may be included Heracles, Cybele, Isis, Osiris, Mithra, Tammuz, Orpheus, Attis, Adonis, and the artificial god Serapis devised by the Ptolemies in the third century, B.C., to combine the identities of Osiris and Dionysus. Several of these religions featured virgin births, death and resurrection, and life after death--central issues later featured by Christianity. Mithraism dominated for more than a century, but it was Christianity that finally succeeded beginning with the conversion of the

Emperor Constantine in the first decade of the fourth century. Later in the century, the Emperor Theodosius imposed a large variety of anti-pagan edicts, and the mounting campaign against paganism, inclusive of secular philosophy, inflicted Christian absolutism with sufficient authority to terminate outspoken secular inquiry in Europe for another twelve hundred years during the so-called Dark and Middle Ages (the latter having begun roughly toward the end of the eleventh century).

Meanwhile, stoic and gnostic versions of religion drew upon Platonic tradition in refining themselves to cope with the challenge posed by Greek secularism. Pythagoras's vision of mathematics imbedded in nature could be used to subordinate the universe to abstract spiritual authority, and this interpretation was enlarged by Plato's theory of ideal forms linked with the concept of *nous* to be able to assign "soul" to this final authority. Plotinus and other Neoplatonists made further revisions, permitting St. Augustine's grand synthesis between Platonism and Christianity. Appropriately, Augustine wrote his first book, *Against the Academics*, published in 386, to attack Cicero's explanation of Academic skepticism, thereby announcing his conversion from pagan philosophy to Christianity at about the same time as Theodosius mounted his campaign to suppress pagan alternatives.

Arab civilization revived Greek secularism between the ninth and twelfth centuries with innovations in numerous fields, including optics, chemistry, astronomy and mathematics, but it was crushed by Muslim fundamentalists even more decisively than Roman civilization had been by the Christians between the fifth and seventh centuries. Arab commerce and military power continued for many additional centuries, culminating in the Ottoman Empire, but Arab secularism may be said to have come to an end with the death of Averroes in 1198. Nevertheless, thanks to Arab scholarship, twelfth century Christian theologians discovered Aristotle's texts in Spain and translated them into Latin. As a result scholastic philosophers identified as nominalists, such as Roscelin and Abelard, could reject Platonic universals as mental fictions irrelevant to material existence explained by Aristotle. It was therefore incumbent upon St. Aquinas toward the end of the thirteenth century to author *Summa Theologica* as a synthesis of Aristotle and Christianity supplementary to St. Augustine's synthesis with Platonism almost a thousand years earlier. Albert the Great and Roger Bacon, among others, sought to revise science, and William of Ockham and his associates updated nominalism in conjunction with the science of Jean Buridan and others. However, the movement unfortunately came to an end resulting from the Black Plague. In recent years much has been argued in defense of progressive theoretical innovations during the Middle Ages, but in the final analysis these were inconsequential compared to the major innovations both preceding and following its twelve centuries of Christian totalitarianism.

The Italian Renaissance once again renewed secularism in the early fifteenth century, partly resulting from the restoration of the Vatican from Avignon to Rome, partly resulting from the capture of Constantinople by the Ottoman Empire in 1453, when a large number of ancient texts were transferred to Italy to prevent their destruction. The Renaissance was literally a rebirth of ancient paganism, and, more specifically, it revived secularism as paganism's most threatening aspect relevant to the authority of the established church. This intellectual breakthrough was inspired by the recovery of ancient authors additional to Plato and Aristotle by so-called Humanist scholarship beginning with Petrarch's obsession with Cicero. Other ancient secularists

who were recovered included Lucretius, Sextus Empiricus, and Diogenes Laertius; and Aristotle was reexamined on a secular basis based on the non-Christian commentaries by Averroes and Alexander of Aphrodisias. There were as many as four texts and commentaries of Sextus Empiricus's writings between the early fifteenth and sixteenth centuries, and as many as ten texts, translations, and commentaries of Cicero's *Academica*, the only surviving text supportive of Academic skepticism, between the mid-fifteenth and mid-seventeenth centuries. This secular motivation was also evident in the earlier scholarship of Valla, who exposed church forgeries and advocated both science and Epicureanism based on the pantheistic assumption that nature is God. Pomponazzi, on friendly terms with Pope Leo X and by most accounts the dominant high-Renaissance Italian philosopher, reexamined Aristotle to suggest the lack of an afterlife, and then, in texts available after his death, challenged predestination, the existence of demons and miracles, the efficacy of prayer, and the supernatural justification of ethics. Machiavelli, in turn, reduced Christianity to little more than a useful opportunity to manipulate popular support for political ends. And finally, beginning with Copernicus, science once again took root inspired by ancient precursors.

Nowadays Cicero is treated as a minor figure in ancient philosophy. Overlooked is his central importance as the single ancient author whose favorable assessment of Academic skepticism survived the Dark and Middle Ages. Though only a fragment perhaps half its original size, Cicero's *Academica* was particularly influential during the Renaissance. Copernicus, for example, admitted in the Preface and Dedication to his magnum opus, *On the Revolutions of the Heavenly Spheres*, that his heliocentric theory was first suggested by Cicero's brief reference to the ancient astronomer Hicetas, whose name is limited to *Academica* among Cicero's texts that have survived. How much of Cicero's exposition influenced Copernicus beyond the Hicetas reference can only be speculated. Other Renaissance and post-Renaissance texts that featured Cicero's account of Academic skepticism included Montaigne's "Apology for Raimond Sebond" from a skeptical perspective, but also, from a scientific perspective, Gassendi's *Syntagma* and Bacon's Preface to *Novum Organum*. Bacon rejected Aristotle's version of science for an approach more in harmony with Academic skepticism as explained by Cicero. Bacon avoided using the word *epoche* and neglected to identify the ancient skeptics whose arguments he paraphrased and extended, but the connection is plain. Bacon also proposed a theory of the four Idols--of the tribe, cave, marketplace, and theater--all of which describe the concepts and issues that obscure the truth.

Modern historians often emphasize Renaissance piety, but if anything the period was characterized by impiety verging on outright heresy. What confuses the issue is that Renaissance authors often resorted to the so-called double truths first suggested by Averroes by paying lip service to orthodoxy in order to explore heretical alternatives. Pomponazzi, for example, conceded the certainty of immortality in order to justify summarizing arguments to the contrary. Montaigne's juxtaposition of quotations served the same purpose, as did many of Shakespeare's double entendres and his provocative mixture of classical and Biblical allusions. The religious art of Leonardo, Michelangelo, and later, most obviously Caravaggio, brought the double truth to visual experience by featuring anatomical accuracy in Biblical scenes instead of the iconic religious depictions emphasized earlier. Similarly, Renaissance church architecture compounded the Gothic emphasis upon vertical aspiration by giving more emphasis to creative expression in its fulfillment. Instead of reaching to God, as typified by the Gothic spire, ceilings (most

obviously Michaelangelo's in the Sistine Chapel) featured art that represented this achievement, thus giving it a more depictive human aspect. Of course Greek mythology also fascinated Renaissance authors, but no less implicit was an admiration for Greek skepticism that served to justify mythology as a hypothetical substitute for orthodox Christianity. And the Renaissance *carpe diem* tradition to seize the day because death was imminent implied sheer non-existence afterwards, for otherwise why risk eternal damnation for having seized the day. According to Christian eschatology, the excessive pursuit of forbidden pleasure guaranteed being sent to hell--at least purgatory. But if there were no afterlife, hence no chance of punishment for one's sins after death, why not enjoy life to the fullest before submitting to death as unavoidable extinction? This defiance of Christian eschatology was thus implicit in the run-of-the-mill *carpe diem* lyric despite its superficial protestations of Christian virtue now and again.

The extraordinary intellectual breakthrough of the Renaissance triggered a collective reaction now identified as the Reformation. This period of turbulent conflict is usually estimated to have lasted from 1517, when Luther posted his 95 Theses to the Wittenberg cathedral doors, to the 1648 Peace of Westphalia. All of Europe fell into bloodthirsty warfare between Protestantism and reformist Catholicism in their shared effort to restore undiluted religious belief, one side prepared to do this by discarding Vatican authority, the other by reforming it. Though overlooked in the heat of conflict, the supposed pagan excesses of Renaissance secularism triggered this confrontation, and it remained the essential issue--sometimes more aggressively suppressed by Protestants, sometimes by Catholics. The Roman Inquisition, for example, prosecuted Galileo for supporting Copernicus's presumably absurd heliocentric theory and burned Bruno at the stake for proposing, among other things, the bizarre thesis already suggested by ancient astronomy that the sun was one among many stars surrounded by planets. Servetus was burned at the stake by Calvin as slowly as possible for having advocated a unitarian theory of God, and Dolet in Paris for having translated Socrates' reference to death, "Thou shalt no longer be," with an elongated construction, "Thou shalt no longer be anything at all." And Vanini's tongue was torn from his mouth by his executioner for having had the audacity to boast as he was strapped to the stake that he died in greater tranquility than Christ. According to one witness (whose report cannot be trusted), he died howling in pain.

The task of the Inquisition soon extended to the issue of witchcraft. In 1484, Pope Innocent VII had expanded the Inquisition to include witchcraft prosecutions as justified by the Biblical injunction: "Thou shalt not suffer a witch to live" (Exodus 22.18). In response both Catholics and Protestants made the effort to exterminate witches during the Reformation. Tens of thousands (perhaps millions) were burned at the stake, many of them single older women with property that could accordingly be confiscated. Some victims of the Inquisition endured the *auto da fe* in order to be purified of evil, others to begin their ordeal in eternal hellfire that was described with almost as much sadistic enthusiasm by Milton as by Dante three hundred years earlier.

Secularism nevertheless revived at new and more advanced levels during the seventeenth and early eighteenth centuries both in France with the skepticism of Charron, Mersenne, Gassendi, and Bayle, and in England with the deism of Herbert of Cherbury, Hobbes, Toland, and Collins. King Henry IV's 1598 Edict of Nantes benefited French freethinkers as well as the Huguenots, and their English counterparts now and again enjoyed improved intellectual freedom

tempered by Hobbes' caveat that atheism was "the sin of imprudence." Like Plato, Descartes feigned skepticism in order to propose God's dominance of a geometric universe as earlier suggested by Pythagoreans. Leibnitz also used ancient Greek philosophy to confirm Christian metaphysics--in his instance by drawing upon the concepts of *logos* and *nous* in order to propose a substratum of monads, again confirming the authority of God. In contrast, Gassendi (more famous at the time than Descartes) revived Democritus's theory of atomism for the benefit of seventeenth century scientists. Both the Dutch philosopher Spinoza's pantheism and the English version of deism were similarly helpful to the secularist cause, the latter by challenging the authenticity of miracles, a personal God, the divine authority of the Bible, Christ's divinity as the son of God, and even, among deism's most venturesome proponents, the prospects of eternal life. Voltaire brought deism from Britain to France, and almost everybody during the final stages of the Enlightenment, even Rousseau, was at least a deist. Jean Meslier introduced outspoken atheism early in the century, and it was later advocated by La Mettrie and d'Holbach with the full support of such individuals as Diderot and Helvetius. Hume, Gibbon, and Adam Smith of Scotland were friendly with the Enlightenment, as opposed to Samuel Johnson and his circle of friends in London. Hume in particular was at least a skeptic (he specifically identified himself with the Academic faction), and probably a closet atheist if not entirely in accord with his friend d'Holbach's infamous book, *System of Nature*, published anonymously in 1770. The entire secular movement in France and England culminated with the French Enlightenment toward the end of the eighteenth century, followed by the anticlimactic excesses of the French Revolution and Napoleon's defeat at Waterloo. Napoleon himself was what might be described as a vulgar atheist at least until his final months, when he was quoted, whether correctly or not, as having repented his earlier blasphemy.

Finally, the most recent period of secular achievement began in the mid-nineteenth century, much of it inspired by Darwinism in almost every area of inquiry. The lapsed German theologians Strauss and Feuerbach (both of them finally self-proclaimed atheists) revised metaphysics to dispense with Christianity, and Thomas Huxley with the help of Leslie Stephen (Virginia Woolf's father) invented the term agnosticism to describe religious disbelief short of outright atheism. Major English atheists included Bradlaugh, Robertson, McCabe, and Russell; major American atheists included Draper, Ingersoll, Santayana, Darrow, and Mencken; and major German atheists included Schopenhauer, Nietzsche, Marx, Büchner, Haeckel, and Freud, with Einstein having remained undecided between deism and agnosticism. This unprecedented surge in freethought reached its peak preceding the First World War. Within a month after the war began, however, all atheist societies in England outside London ceased to exist, and much the same effect seems to have been produced elsewhere among the advanced industrial nations. Afterwards, atheism continued to decline resulting from ties between religion and patriotism during the two World Wars, and then the Cold War against "godless communism" that dominated the second half of the twentieth century. Nevertheless, such figures as A.J. Ayer, Sidney Hook, Paul Edwards, Antony Flew, Gordon Stein, Steven Weinberg, Richard Dawkins, Alan Kors, Madalyn O'Hair, and Paul Kurtz, have effectively kept the issue alive in recent years.

Since the mid-nineteenth century Christian apologists have simplified their creed on more defensible grounds, as much as anything by eliminating the threat of eternal hellfire despite its frequent reference by Christ throughout the Gospels, especially in the Sermon on the Mount. Religion now emphasizes a gentler vision of salvation and as a result has enjoyed a resurgence in

popularity. This is especially true in the United States, which seems the most friendly to Christian faith among advanced industrial nations. Americans are more devout on a descending scale than Spain, Italy, Israel, Britain, France, Germany, Sweden, China, or, least of all (i.e., the most secular of all), Japan.<sup>1</sup> A small minority of Americans--now in the range of fourteen percent--are willing to identify themselves as freethinkers, while our nation's great majority as well as elected officials who pander to their piety increasingly embrace Christianity, if without attending church on a regular basis.<sup>2</sup> Nevertheless, it should be recognized that freethinkers have always been a small minority in advanced societies, even during the Age of Pericles and the peak years of the French Enlightenment. Moreover, the secularist perspective enjoys sufficient acceptance outside the United States to be able to predict with relative confidence that enough secular critical mass can be expected to generate another phase of "high" civilization in the near future--perhaps in the United States, probably elsewhere in the world. For western civilization is no longer the exclusive possession of western nations. As already indicated, Japan, China, and India stand today at the threshold of full membership, and any society blessed with a healthy mixture of affluence and inquisitive nonconformity is able to join.

As suggested by the thumbnail history provided here, secularism has undergone an intermittent pattern of growth since its inception. The twelve-century gap between its collapse in ancient Rome after the reign of Marcus Aurelius--his son Commodus having preferred Mithraism--and its recovery during the Italian Renaissance was the most elongated interruption. If Arab civilization is included in this calculation, however, there is a division into two four-century gaps, one preceding Arab civilization and the other following it. Depending on the particular nation, the Reformation brought perhaps a hundred-fifty years of orthodox reaction, while anti-Napoleonic conservatism inspired by German metaphysics and the romanticism of Kleist and Chateaubriand lasted not more than three or four decades after Napoleon's defeat at Waterloo. Foreshadowed by ancient freethought, secularism remained a continuous threat throughout these increasingly shorter periods of reaction, no matter how dominant religion might have seemed at any particular time. Precisely for this reason, the church exercised continuous vigilance against heresy and freethought, most obviously with the medieval and Spanish Inquisitions, but later with Catholicism's Prohibitory Index of books and the threat of jail and prison sentences for impiety in both Catholic and Protestant nations well into the nineteenth century.

In sum, the success of western civilization primarily derives from its extraordinary secular achievement, and religion's contribution consists of its effectiveness in having kept secular momentum at a manageable level for popular consumption. Nevertheless, secularism has been the *sine que non* of western tradition, its single most important ingredient without which it could not have occurred. Minus secularism, we would have endured the same intensified history of poverty and deprivation to be found everywhere else in the world. The positive impact of religion has consisted of little more than the constraints it has imposed upon secular innovation relative to the capacity of the ordinary mind to make the necessary adjustments for coping with it. Without religion's inhibitive resistance, secular innovations might have been too rapid for Europe's populace to absorb without lapsing into excesses typified by the Reformation and modern fascist societies. How, then, did secularism obtain takeoff unique to western civilization?. As with the pre-Homeric earth goddess Gaea, her son Uranus, and their shared son Cronus, materialists first begot skeptics (identified as Sophists) and the two combined,

aggravated by metaphysics, gave birth to scientists. These in turn produced inventors and engineers, who created the many thousands of innovations that now both dominate and facilitate our lives. As a result, whatever our attitude toward religion, we for the most part enjoy a better level of comfort and sophistication than the great majority of those who live outside western civilization. It is my contention that this unique history has given rise to a strikingly different intellectual outlook--in effect a shared secular perspective, whether acknowledged or not, that has persisted since ancient Greece, whatever the distractive constraints imposed by Christian tradition.

#### **4. Toward an Adequate Model of Western Civilization**

The relevance of Marxism to the historic model suggested here seem obvious. One may concur with Marxists--as well as most Wall Street bankers--that all cultural issues reflect basic economic trends involving production, labor, trade, investment, banking and monetary policy. As a result, the Marxist distinction between economic "base" and its social "superstructure" seems useful, as does the Marxist analysis of capitalist societies beginning with ancient Athens, when both primitive capitalism and the rudiments of class struggle first emerged. However, it is also important to accept Engels' important concession as a Marxist that feedback occurs between base and superstructure, giving the latter a far more important role than "vulgar" Marxists might ordinarily be willing to accept.<sup>3</sup> And in fact Engels' concession may be extended to a level that Engels himself would have found excessive. For the intellectual dynamics essential to the history of western civilization described here do in fact supersede their economic base, finally providing it with benefits well in excess of those it provides them. This is comparable to economic variables in industrial production that supersede the still more fundamental role of natural resources available to particular societies. Similarly, the model described here gives a significant role to western civilization's intellectual superstructure that encourages secular inquiry. As a rule of thumb, a thriving mercantile economy does seem to have been essential to the advancement of civilization, and many societies benefited from such an economy without having played an important role in this advancement. This can be observed, for example, in comparisons between the ancient cities of Athens and Corinth, between Florence and Milan during the Renaissance, and between Paris and Madrid during the seventeenth century. Nevertheless, the more compelling importance of the intellectual superstructure cannot be ignored. Whatever base-superstructure similarities might have occurred, it may be assumed that variation specifically relevant to the acceptance of secular inquiry, and free thought in particular, has been of primary importance in the history of western civilization. Without this acceptance, what might otherwise seem a healthy base-superstructure matrix for any particular society contributes very little to a nation or society's collective success. When an essentially secular collective viewpoint suddenly turns religious, the most important consideration is whether this results from warfare, with exaggerated patriotism inevitably buttressed by exaggerated religion, or from a broader intellectual decline that spells chronic stultification into the foreseeable future.

The holistic description of western civilization's secular tradition accordingly resembles Hegel's intellectual theory of history as much as the Marxist dialectics that supposedly turned Hegel on his head.<sup>4</sup> What needs to be done, one suspects, is to put Hegel back on his feet with a minimum of discomfort to Marx. For Hegel's notion of the central importance of freedom seems more compelling than many realize as the dominant teleological determination at the root of

history. Also attractive is Hegel's view that history enacts the advancement of collective *Geist* (spirit) whereby growth in one phase is matched by degradation in another, with obvious relevance to the complementary standoff between belief and disbelief, or more specifically, as Nietzsche has suggested, between truth and belief (i.e., between truths established by stringent standards of verification and the acceptance of gratifying unexamined assumptions). However, Hegel's concept of *Geist* as absolute idea seems dubious relevant to this dialectic, since it emphasizes mind as a cosmic reification rather than the groping for answers as a process of thought for which mind, or spirit, primarily serves as a vehicle. Of course thinking is impossible without the mind, but it is the dynamic activity of thinking in and of itself that typifies human intelligence, as illustrated by scientific inquiry as well as philosophical speculation. Much more useful to the model proposed here, therefore, would be Arcesilaus' principle of *epoche* as an incessant pursuit of better ideas. Contrary to belief, which for the most part entails a mental vacation resulting from the confidence that nothing remains to be explained, *epoche* entails active inquiry that intensifies thought processes both for the individual mind and for society as a whole, for example with the growth of any particular science and more inclusively with the cumulative advancement of western civilization.

Without referring to *epoche*, Hegel maintained that the fear of error (whose avoidance finally motivates *epoche* as the incessant pursuit of better ideas) is in itself the very error to fear, thus dispensing with the task of inquiry except as confirmation of belief. On the positive side, the willingness to risk error encourages speculative brainstorming that can be extremely useful. However, when exercised as a defense of unexamined belief, indifference to the possibility of error (who cares: maybe God, maybe not) can only be justified on a Pyrrhonian basis, and this is inimical to western civilization's cumulative success in both maximizing accuracy and putting this effort to use toward ends beneficial to society. Even more dubious is Hegel's concept of freedom as a religious achievement that culminated with nineteenth-century German philosophy's paradoxical axiom that our Christian God is absolutely perfect, and that the nature of His omnipotent will is therefore perfect freedom. What nonsense! Quite the contrary, it seems obvious that freedom from religion has made possible our collective achievement, and, conversely, that religion has played a major role in obstructing social and economic progress at least since the inception of Christianity.

For like too many other religions, Christianity enforces a formidable number of orthodox constraints--the sins to be renounced as well as all the thou-shalt-not's, taboos and heresies to be reviled. Also negative are the traditional observances not to be abandoned, the mores and social customs not to be broken, the ideas not to be examined, the books not to be read, the references not to be mentioned, and the dissenters not to be tolerated. Religion has likewise rejected important innovations until their vailidity could no longer be denied--for example sanitation during the Renaissance, heliocentric theory during the seventeenth century, smallpox vaccinations during the eighteenth century, representative democracy and the abolition of slavery through the mid-nineteenth century, women's suffrage into the early twentieth century, evolution since the mid-nineteenth century, and today abortion, family planning, assisted suicide, same-sex marriages, and research in recombinant genetics. True, a small minority of clergymen have now and again come to the support of the progressive alternative when these issues dominated public debate, for example relevant to the abolitionist and suffragist causes. However, the great majority have no less inevitably shared the viewpoint of their most conservative parishioners--on the

assumption, as illustrated by the two cited instances, that slavery and sexual inequality were dictated by God as confirmed by Biblical scriptures.

Ethics supposedly justifies this negativity, but with mixed results at best. Kant and Hegel gave Christian ethics transcendent importance, but this emphasis seems best judged at the most practical level--the assurance that one might better avoid crime or gross misconduct if natural decency and fear of the law are compounded by the fear of God's wrath and eternal punishment after death. This is best illustrated by the religiosity of jailhouse fundamentalists torn between mindless violence and no less mindless Christian enthusiasm. For at least a few of us, however, morality deserves a better and more valid incentive than cosmic intimidation. To be moral in order to go to heaven is not really to be moral, and an excessive dependence on this ethical crutch creates the opportunity for a potentially dangerous brand of simplistic righteousness. Similar problems occur when religion is evoked to reinforce patriotism during periods of warfare. It might be comforting to think that God is on our side--that we are the "chosen" people, that if killed we will surely go to heaven, and, too often, that our battlefield atrocities are justified if committed against enemies rejected by God. As a result, it is no surprise that nations, sects, and individuals prone to warfare tend to be the most religious. Obvious examples of pious warriors capable of monstrous crimes include medieval crusaders, Reformation armies, and more than a few contemporary fighters engaged in religious conflict over the last couple of decades, for example in Bosnia, Kosovo, Rwanda, the Sudan, Chechnya, Israel, Iran, Kashmir, Sri Lanka, Indonesia, northern Ireland, and, yes, the United States. Today, we must also cope with devout and ultra-patriotic Americans proud of our nation's many foreign interventions since World War II--unwilling to accept the ethical responsibility of its military excesses. What is one to think, for example, of an Iraqi prisoner's disclosure to a press interview:

They [his American interrogators] ordered me to curse Islam and because they started to hit my broken leg, I cursed my religion. They ordered me to thank Jesus that I'm alive. And I did what they ordered me"? 5

How possibly is such a transaction Christian on a truly Christian basis? If hell exists, as Christ insisted, the soldiers who did this can expect to be consigned to eternal hell fire. Yet the same attitude held sway through the Dark and Middle Ages followed by the Reformation. Since World War II, the United States' record of military conflict has been unexceeded among modern industrial nations, as is our collective dependence on religious worship, and the connection between the two is hardly coincidental despite the courageous pacifism of a small minority of Christian worshippers.

Toynbee's theory of historic challenge and response provides a useful variant of Hegelian historiography in explaining the rise and fall of civilizations.<sup>6</sup> Once again idea takes precedence over praxis--mental choice over both base and superstructure--since it is the collective decision to confront challenge, whatever this might consist of, that presumably determines the future success of any particular civilization. Conveniently, my approach limits this essential decision to the challenge provided by increased wealth and power in response to which a society might--but might not--tolerate secularism in the teeth of received orthodoxy. Some nations can and do accept this challenge, while others avoid potential controversy linked with secularism at the risk of losing their competitive edge with other nations. Emboldened, for example, by trade and a

wide network of colonial settlements, ancient Greece was far more receptive to secularism than were its Phoenician contemporaries in the port cities of Tyre and Sidon; and, within Greece, Athens was far more secular than the competitive port cities of Aegina and Corinth, to say nothing of the interior cities of Sparta and Thebes. It should be no surprise that the Apostle Paul was scoffed out of Athens, but given a sympathetic hearing in Corinth. Similarly, Rome exceeded Carthage, Renaissance Italy exceeded Spain, and the seventeenth century rivals France and England exceeded most of the rest of Europe in the acceptance of free thought. As a result France and England dominated progress in western civilization for the next two hundred years. In contrast, it took Germany a full century to recover its potential after the Reformation, while Spain and Switzerland declined to the status of peripheral beneficiaries from which they have yet to recover. The same applies to modern democracy, which is better secularized than any of its autocratic alternatives including fascism and communism, both of which have effectively degraded secularism into ideological doctrine equivalent to religious commitment. In every instance Toynbee's idea of "challenge" occurred when a society was confronted with the risk of secularism with all its advantages and disadvantages, and the most necessary and appropriate "response" occurred when it accepted this risk.

Spengler's insistence upon the inevitable decline of civilizations provides another variant of Hegelian analysis with which I can agree, but with the qualification that western civilization is a special exception that has until now escaped this outcome of collective disintegration.<sup>7</sup> As Joseph Tainter has demonstrated in *The Collapse of Complex Societies*, many civilizations have undergone comparable patterns of growth and decline, but none with sufficient intellectual freedom to have produced innovations that might have helped to perpetuate their existence.<sup>8</sup> In contrast, the amazing intellectual achievement of Greek left sufficient testimony--the writings of Aristotle and dozens of others--to inspire medieval Islamic civilization for three hundred years, followed by the Italian Renaissance, the French Enlightenment, and industrial and post-industrial societies beginning in the nineteenth century. All these periods of intensive achievement also played major roles in perpetuating the history of western civilization. That many of them later fell into decline as described by Spengler and Tainter turned out to be less than catastrophic, since the task was renewed and carried forward by other societies while they themselves continued to reap at least a few of the benefits of their earlier accomplishments.

It is also possible to suggest here that western civilization may be divided into three phases. During its first twenty-two centuries (phase 1) it persisted largely as a result of the transmission of secular ideology first from Greece and Rome to Arab civilization, then to the Renaissance. Its most recent four centuries (phase 2) have instead entailed cross-fertilization among a few contemporary societies with roughly equivalent secular potential--primarily France, England, Germany, and now the United States--each of which attained takeoff comparable to ancient Greece and Rome. Continued advances thus become possible into the indefinite future so long as global cataclysmic events such as nuclear warfare and uncontrollable epidemic diseases can be avoided. The last stage (phase 3), which is only beginning to occur, expands participation to include non-western nations. Indeed, western civilization might eventually collapse as predicted by Spengler, but the current possibility of expansion beyond Europe and the former English colonies would suggest future viability on a larger scale, whether led by the United States, China, Japan, or, most probably, by a reinvented Europe.

And, finally, Hume's principle seems relevant that general historic trends tend to be more predictable than the particular events that contribute to these trends 9. This insight applies at all levels of history, and for western civilization it helps to explain the obvious similarities among the hegemonic epicenters already described. Each epicenter bore its unique signature, but they all enacted the same basic pattern of accomplishment in carrying forward western civilization's more inclusive sequence. Six distinctive historic circumstances justify comparisons on this basis:

1. All these societies benefited from high levels of economic prosperity. Sometimes military victory contributed to this affluence, but without having overshadowed mercantile priorities, such as was the case for Athens compared to Sparta in ancient Greece, and for both England and France compared to Spain during the Reformation.
2. There was unusual centralization in major cities, cosmopolitan epicenters that combined sufficient levels of wealth, trade, and immigration to stimulate intellectual activity. These epicenters included Miletus, Athens, Alexandria, and Rome in ancient times; Cordoba, Baghdad, Cairo, and Damascus during medieval Arab civilization; and, since the Renaissance, Rome, Florence, Paris, London, Berlin, and New York City. Also important have been a few secondary cities such as Venice, Vienna, and Amsterdam, and, since the Renaissance, university towns in Italy, England, Germany, and the United States.
3. An educated "middle" class (neither aristocratic nor plebian) played substantial role, inclusive of a flourishing minority of scholars, philosophers, artists, political dissidents, and sundry intellectuals. There was also cosmopolitan sophistication as well as ample conspicuous consumption and a certain measure of hedonist decadence.
4. Orthodox religion was overshadowed for one or more generations. Intense religious commitment might have occurred both before and after periods of secular achievement, and even concurrent with them in the effort to discourage nonconformity. Nevertheless, heresy, skepticism and outright atheism also occurred as both a source and byproduct of intellectual ferment, and, if nothing else, their prevalence serves as a useful indicator of productive intellectual activity.
5. Science thrived in a fairly loose historical connection with other areas of secular achievement. Four main stages may be discerned: (1) Aristotle's Lyceum followed by Alexandria, (2) medieval Arab civilization, (3) the thirteenth and fourteenth century medieval effort; and (4) the exponential trend from Copernicus to the present. Science during the Renaissance did not gain momentum until the turn of the seventeenth century, culminating with Newton's accomplishments. On the other hand, scientists thrived both during the eighteenth century French Enlightenment (Buffon, Lavoisier, etc.) and toward the end of the nineteenth century (Maxwell, Einstein, etc.). Since World War II, basic science has continued to be important, but perhaps less important than advances in science-based technology.
6. Without exception, hegemonic dominance was brought to a close by a combination of warfare and internal dissent. This happened with the fall of Athens during the Peloponnesian War, with Rome's progressive decline culminating with the barbarian

invasions of 410 and 455, A.D., with the collapse of the Italian Renaissance linked with the Reformation's religious wars, with the termination of the French Enlightenment in the French Revolution and Napoleonic wars, and with the late nineteenth century rivalry between England and Germany that was brought to a close by two ruinous World Wars, setting the stage for an unexpected half-century rivalry between the U.S. and U.S.S.R. Arab civilization dissolved in prolonged Muslim fundamentalist insurrection led by elements better able to cope with Christian aggression additional to a Mongol invasion from the East under Genghis Khan. In all instances orthodox religion revived as a source of reaction, and only later--between a decade or two and a couple hundred years--would a new cosmopolitan hegemony emerge to repeat the pattern in a new historic context probably--but not necessarily--elsewhere.

True, many specific differences occurred among the hegemonic epicenters which participated in the advance of western civilization. Nevertheless, these six historic circumstances were shared by most, if not all, societies that played a substantial role in the cumulative advancement of western civilization. Societies that deviated from the pattern were usually limited to a peripheral role, for example during the so-called medieval renaissance of the twelfth and thirteenth centuries.

Today, with the collapse of the Soviet Union, the United States enjoys undisputed hegemonic dominance, so the question seems appropriate to what extent its situation fits the profile described above. In fact, many resemblances suggest themselves among the six categories. As specified by the first category, the U.S. economy underwent rapid growth after the Civil War, expanding in well less than a century to dominate world trade both in war and peace. Also, the disproportionate military advantage has been unique in modern history, for example with troops stationed across the globe, with the use of formidable space-age technology, and with a defense budget now probably exceeding the combined military expenditures of all other nations combined. As a result the U.S. enjoys what seems automatic diplomatic leadership as well as maximum access to foreign markets. As specified by the second category, the U.S. possesses in New York City a hegemonic epicenter equivalent to Athens, Rome, Paris and London in earlier centuries. As specified by the third category, the U.S. possess a large middle class educated by a huge university system, most of whom can be said to have been secularized at least in the avoidance of religious issues as a frequent topic of conversation. And as specified by the fifth category, science and science-based technology have fared well, especially in cosmology, brain physiology, recombinant genetics, computer technology, and nuclear and medical research. Additionally, the U.S. enjoys a high level of intellectual freedom, if with the paradox that orthodox traditionalists exaggerate its importance despite their strenuous effort to curtail discourse they find offensive, while those who despise the incessant rhetoric of freedom because of this hypocrisy are the most likely to exercise their freedom to express themselves.

It is the fourth category, the temporary eclipse of orthodox religion, that is the most questionable, since free thought trends in the United States coincided with those of Britain and Germany at the turn of the twentieth century, and there is now a surge in fundamentalist religion unique to the United States among advanced industrial nations. This might suggest that U.S. civilization peaked as early as the Vietnam War, followed by mounting symptoms of social and economic decline additional to increased religious enthusiasm. Multinational corporations, for

example, have exported too much of the U.S. industrial base in order to maximize profits. Also, the value of the dollar has dropped excessively; the national debt has skyrocketed in just a couple of years; wealthy conservatives now almost totally dominate the "free" press; the U.S. educational system is in serious disrepair; and increasing numbers of the American public are dropping out of the middle class.<sup>10</sup> What kind of future can be anticipated? Short of catastrophic warfare perhaps involving nuclear attack, one can anticipate a steadily declining real income, an increased manipulation of public opinion, and a few more decades of global dominance enforced by frequent American interventions abroad, followed by a transitional period difficult to predict. There are several nations in contention for the world's future hegemonic leadership depending on the extent they can ride the tiger of secularism, the most dangerous yet promising instrument of human potential available to the world community.

### **5. The Miracle of Western Civilization**

The importance of religion in world history cannot be doubted, and it seems entirely possible that secularism might never have advanced to its current status under different historic circumstances. Few deny that religion has been practiced on a universal basis, and, conversely, that the pursuit of secular freedom has been relatively limited to a small portion of the world's population. Most non-western societies, for example, have escaped the full impact of secularism, and there is no evidence that secularism ever took root among pre-Columbian American civilizations, nor among African cultures as recounted by explorers and missionaries. Nineteenth century anthropologists did encounter primitive cultures of Asia and the Pacific region that lacked a belief in god(s)--Tasmanians, Aetas, and Negritos, for example--but this seems to have been through ignorance of such a possibility, since they quickly became believers once exposed to the god concept. Other societies believed in evil or incompetent gods, but there was no doubt among worshippers that these existed. Gods and demigods could be temporarily killed in order to be resurrected, for example Christ and the various eastern Mediterranean sacrificial deities who preceded him. Then again, a few gods could be more decisively killed--for example Kingu in Mesopotamia's creation myth Atrahasis --but these were survived by other gods, and pious worshippers could remain confident that the god(s) survived.

Throughout ancient history Phoenicians seem to have persisted in their worship of the god Baal, engaging in both sacred prostitution and human sacrifice at times of national crisis--usually with male children having been placed in the lap of Baal's enormous statue, then dislodged to slide into flames below while music played to drown out their cries. There is also little evidence of secularism in either ancient Egypt or Mesopotamia. From the Sumerians we have only the vivid myth of Gilgamesh and his sidekick Enkidu having murdered Humbaba, a demigod of nature, and having spurned the marital advances of Ishtar, the goddess of both love and war. Gilgamesh (two-thirds a god) and Enkidu thus killed and insulted gods, but without having otherwise challenged the likelihood of their existence. This would have been a different issue, and there is no evidence it was ever raised.

From Egypt during the Empire, or "Age of Heresy," under the Pharaoh Amenhotep III during the fourteenth century, B.C., comes the Harper's Song that suggests the *carpe diem* theme that we must enjoy ourselves because of our uncertainty of a future life. Perhaps there were other texts with comparable subversive implications, but there is no record to this effect. In any case,

the opportunity for secular expression came to an end. Soon after, the teenager King Ikhnaton advanced the monotheistic worship of the sun god Aton as suggested by his mother Tiy, who seems to have been inspired by the religion of the Mitanni people in Asia Minor. In part, this early venture in monotheism turns out to have been an abortive takeover ploy at the expense of hostile priests. As perhaps to be expected, its single-god thesis bore the same exclusionary assumptions favoring a "chosen" few after having been adopted by the Hebraic and Christian traditions.

There is also little evidence of secularism in the Old and New Testaments. A notable exception, of course, is Ecclesiastes, where the possibility of an afterlife was denied, but this was without rejecting God's authority, much less His existence. In the Book of Job, the ethical basis of God's authority was questioned, but His corporeal existence as an anthropomorphic deity was abundantly in evidence. God's physical presence was also described in Genesis, and His voice continued to be heard out of the clouds in the Gospels. The obligation to worship God was emphasized both in the first four of the Ten Commandments and in Christ's exhortations throughout the New Testament.

On the other hand, there is almost no reference to atheism in the Bible. The first sentence in both Psalms 14 and 53, "Fools say in their hearts, 'There is no God,'" would suggest that disbelief was by obligation unthinkable--indeed, unspeakable--among the Jewish community of the Old Testament. And the same held true in the New Testament, in which Christ consigned to eternal hellfire those who doubted or refused to accept his status as the Son of God (Matthew 10.33; John 14.6, etc.), but without extending this condemnation to the denial of God's existence--again, it seems, because such a possibility was both unthinkable and unspeakable. Christ's final words to God, "Why hast thou forsaken me," suggests that his only concern was his possible desertion by God, without any hint that God's absence might have resulted from His never having existed in the first place. Moreover, the jarring profundity of Pontius Pilate's simple question, "What is the truth?"--obviously derivative of Greek skepticism and, according to Nietzsche, the only useful sentence in the entire New Testament--went unnoticed, mentioned in only one of the Gospels. When Christ warned, "Render unto Caesar the things which are Caesar's; and unto God the things that are God's," he expressed his utter confidence in God's existence and providential authority as opposed to the empty materialistic demands to be conceded to Caesar's authority. The same choice was implicit in Ephesians, 2.12, when Paul spoke of gentile non-believers, "Having no hope, and without God in the world," probably in response to his earlier ordeal in Athens.

As exceptions to prove the rule, the civilizations of China, India, and the medieval Arab world did tolerate freethought inclusive of atheism. However, all three eventually rejected this option with enough finality to have thwarted its resumption in the future. Ancient Chinese and Indian civilizations were inspired by identifiable freethinkers whose influence tapered off without having encouraged a sustained secular movement 11. In ancient China, the principles of Taoism taught by Lao Tzu of the sixth century, B.C., implied a godless universe, but soon enough his emphasis on self-sufficient cosmic unity was embellished with popular religious scaffolding that justified the conventional worship of deities. Benefitting from Lao Tzu's example, Confucius and Mencius avoided the issue of religion, neither attacking nor defending it. In contrast, Hsün-tzu of the third century, B.C., and Wang Chong and Wang Yusin of the first

century, A.D., can be mentioned as outspoken atheists, but during the Wei and Jin dynasties that followed, their influence yielded to popular schools of Buddhism that once again emphasized conventional worship rooted in the expectation of an afterlife. Later atheists included Zhang Zai and Wang Tingxiang, respectively of the Sung and Ming dynasties, but nothing emerged as a secular tradition comparable to western civilization.

In India, the thinkers Uddalaka and Kapila as well as the lost text Brihaspati Sutra advocated a materialism with prehistoric roots suggestive of animism. A godless concept of the universe can also be extrapolated from the central tenets of Hinduism, including the Vaisesika, Samkhya, Mimamsa, and Vedanta systems as well as the teachings of Makkali Gosali. However, Hinduism offered a theology sufficiently elaborate to permit the average worshipper to ignore this possibility, as in fact became the common practice. Buddhism in its earliest formulations was also godless, but did not deprive conventional believers of the spiritual gratification to be obtained from the ritual worship of traditional gods and goddesses. As late as the eighth century, A.D., the Buddhist philosophers Nagarjuna and Santideva denied creationism on skeptical grounds, but apparently without having challenged God's existence. Unfortunately, these secular achievements did not give rise to science and science-based technology, nor did they trigger a viable secular tradition comparable to that of ancient Greece which went on to survive the Dark and Middle Ages. Today, secularism has returned to India and China, but this seems to have been mostly the product of western influence. In India the recovery of secularism was linked with British colonial occupation and in China it was encouraged first by Sun Yat-sen, later by the Maoist version of Marxism.

Finally, Arab civilization preserved a secular tradition for at least three hundred years, as illustrated by the scientific accomplishments of such figures as al-Kindi, al-Biruni and al-Hazen, the mathematical contributions of al-Khwarizmi and al-Battani, the Aristotelian hermeneutics of such figures as al-Farabi, Avicenna and Averroes, and the atheistic pronouncements of such poets as Omar Khayyam and Abu al-Ala al-Ma'arri, the latter having argued simply enough that the world holds two classes of men--intelligent men without religion, and religious men without intelligence. However, as already indicated, this remarkable historic period was crushed by Arab fundamentalists, after which the Arab world ignored its secular legacy. For Arabs two centuries later it was as if Allah's supernatural authority had never been challenged.

What I am suggesting here is both that western secularism might never have taken place, just as happened in most of the non-western world, and that once begun it could have been brought to an end without any prospect of reviving itself, just as happened in the Arab world and probably in China and India. This latter possibility has posed more of a threat to western civilization than generally recognized, for there were several historic contexts in which secularism was almost suppressed with sufficient impact to have obliterated any chance of recovery. At the end of the Peloponnesian War in 405, B.C., for example, Sparta and its allies could have totally demolished Athens just as the Persians demolished Miletus in 494 B.C., and, in fact, just as Athens and Corinth demolished Aegina in 431 B.C. The complete destruction of Athens could have prevented the later pursuit of philosophy by such figures as Plato and Aristotle as well as their respective schools, the Academy and the Lyceum. The Stoics, Cynics, and Epicureans would also have been expunged from history.

Then again, the censorship campaign of the Christian Emperor Theodosius, Saint Gregory, and others from the fourth through sixth centuries, A.D., could have been pursued more aggressively with devastating effect. As it turned out, a vast secular literature was destroyed throughout the Roman empire, as exemplified by the demolition of the Library of Alexandria in either 389 or 391 A.D., as well as the Palatine library later destroyed by Saint Gregory according to John of Salisbury. In Alexandria alone, at least half a million texts are said to have been lost in accord with Theodosius' anti-pagan edicts. In the end, the 55 texts of Strato and all 300 scrolls of Epicurus--reputedly the most productive ancient author--were lost except for three letters by Epicurus included by Diogenes Laertius in his uneven history of ancient philosophy. Like Socrates and others, Carneades had depended on one of his disciples, Clitomachus, to transcribe his ideas, but all 400 scrolls of Clitomachus's writings that explained Carneades' skeptical philosophy were lost. Only one copy of Lucretius's *De Natura Rerum* survived the Dark and Middle Ages. It too would have been lost if it had not been discovered by Poggio Bracciolini in a remote Swiss monastery in the early fifteenth century. Fortunately, nearly fifty texts by Aristotle survived as reorganized lecture notes supposedly found in a cellar two hundred years after his death and edited and published by Andronicus of Rhodes in 70 B.C. However, as much as two-thirds of Aristotle's total output was lost, including all of his prized essays and dialogues. Not surprisingly, Plato's 28 dialogues survived intact and are now available in cheap texts at many thousands of bookstores, while the 755 lost texts and scrolls by Strato, Clitomachus, and Epicurus, all of them central to the ancient secular tradition, are not. For modern Christians this does not seem to be an important issue; for the modern freethinker it is--or ought to be--a tragedy.

How did Cicero's *Academica* survive as the single friendly assessment of Academic skepticism, written just a couple generations after Carneades? This can be attributed to the effort by Petrarch and his contemporaries to preserve the entirety of Cicero's writings because of his letters, speeches, rhetorical expertise, pivotal historic role, and encyclopedic knowledge of Greek philosophy acquired during his youth. Even so, the crucial section of *Academica* summarizing both Arcesilaus and Carneades' principal ideas has been lost--not to be found in any surviving manuscripts. What if this were the fate of the rest of his text? And what if the one surviving manuscript copy of Cicero's *De Natura Deorum* (also with a crucial missing passage) did not survive long enough to be used as the source of all subsequent editions? Moreover, what if the encyclopedic texts of Sextus Empiricus and Diogenes Laertius two centuries later were also lost? It may be speculated that both of these escaped destruction during the Dark and Middle Ages because they were suitably dismissive of Academic skepticism's secular emphasis. However, they summarized its assumptions in order to reject them, and with arguments specific enough to help clarify Cicero's interpretation. But suppose this scholarly detective work had been anticipated, bringing the destruction of these texts as well as the entirety of *Academica* and *De Natura Deorum* additional to the complete works of Strato, Epicurus, and Clitomachus. Suppose all of this had been suppressed, and Aristotle's manuscripts had not been found moldering in a basement two centuries after his death. Whether intended or not, the eradication of pagan secularism would have been complete, and its later reconstruction would have been all but impossible.

Secularism remained vulnerable well into modern times. As already indicated, the total dominance of organized religion during the Dark and Middle Ages might have lasted into the

indefinite future if Arab civilization had not preserved the ancient texts that were retrieved during the Renaissance. Also essential was the collective philological obsession of Petrarch, Poggio Bracciolini, and many other Humanists willing to accept this challenge. If their collective effort had been curtailed, for example by papal decree, the rediscovery of ancient secularism would not have occurred. Moreover, the Renaissance achievement would have been in vain if the seventeenth century religious wars that followed produced the same level of orthodox stultification in France and England as in Spain, Germany, and eastern Europe. Only France and England--with frequent assistance from the Netherlands--remained tolerant of skepticism and free thought, and this was a relatively small portion of Europe, smaller than ancient Greece and its network of colonies twenty centuries earlier.

Even during the eighteenth century there might have been a cultural reaction sufficient to crush the free thought movement. Louis XIV's revocation of the Edict of Nantes in 1685 had brought to a close France's seventeenth century fascination with skepticism, and by 1750 England's deist movement was no less effectively challenged by Dodwell, Berkeley and other orthodox Christian apologists. King George III's coronation a decade later consolidated this reactionary achievement, launching almost a century of conservatism in England, epitomized by the role and musings of Samuel Johnson, which would have been devastating if it had been matched by an even more assertive secularist trend in France. As much as anything, free thought survived because of the remarkable effort of a single individual --Voltaire--who imported English deism to France after his 1726-29 exile in England. This he did with a torrent of writings--tragedies, satires, histories, books of science and philosophy, an unmatched personal correspondence (20,000 letters still exist), and his publication of Jean Meslier's Testament, the first modern defense of atheism in a full text, though even Voltaire was sufficiently disturbed by Meslier's candor to reduce its scope to pronouncements to those acceptable to the deist position. Not to omit Voltaire's various anonymous pamphlets supportive of his personal vendetta against violent injustices encouraged by organized religion. "*Ecraissez l'enfame*" (eradicate the infamy, with specific reference to the Catholic Church) was his incessant slogan, and much of France was swept into his cause. Voltaire's campaign revitalized France's free thought movement, setting the stage for a resurgence of secular inquiry that included Rousseau's demotic extremism and atheist speculation by Diderot, d'Holbach, Helvetius, and others that bore implications beyond anything Voltaire himself could accept. Voltaire's example also encouraged a revival of deism in the Anglo-American world among such figures as Paine, Priestley, Franklin, and Jefferson as well as Hume's "mitigated" version of Academic skepticism that effectively complemented the atheistic materialism of his good friends Diderot and d'Holbach. But suppose Voltaire had died young or been diverted from his mission? How would free thought have survived? Science alone, especially Darwin's influence eighty years later, would probably have restored the secularist cause, but we cannot be sure.

In sum, the omission or suppression of free thought has been universal worldwide except for the secular revolution of ancient Greece that leapt from one hegemonic epicenter to another, then proliferated among modern industrial and post-industrial societies with exponential vitality over the past two hundred fifty years. As a result, secularism has advanced to such a level of general acceptance that orthodoxy's best option at this point is the pursuit of "respectful separation," as recommended by Stephen Jay Gould. However, this limited victory was not inevitable. And without free thought and the benefits of secular innovation, there could only be

universal poverty compared to the standard of living in western nations. Everybody everywhere would lack both the direct and indirect benefits of science. Our shared experience would be very primitive indeed, and all humanity would continue to endure the poverty-ridden feudal circumstances to be observed in too many non-western societies today. Slavery, patriarchal tyranny, sexual oppression, and fundamentalist superstition would predominate, education would continue to depend on rote memory, and our collective mortality rate would be much lower than it is today. And what of eccentrics with too many extravagant ideas? All too likely, the few who cannot be coopted through recruitment into the priesthood would either be treated as madmen or prosecuted for heresy.

It remains possible that the entire collective enterprise identified as western civilization might yet collapse, and perhaps sooner than expected. However, catastrophe would have to occur on an unprecedented scale, and contrary to the needs and interests of too many people. A more optimistic scenario accordingly seems probable for western civilization as a miracle that might not have happened. For our unique cultural tradition could have dwindled or been suppressed, but it wasn't--and, however difficult its growing pains, it continues to thrive. For this on balance we can be grateful.

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## FOOTNOTES

1. See Ronald Inglehart, "World Values," in *LSA Magazine: University of Michigan* (fall, 2003), pp. 32-33.
2. Individuals who indicate "none" when asked about their religious preference have risen from 8 percent of the total population in 1990 to more than 14 percent in 2001, though less than 1 percent are willing to identify themselves as atheists. See the 1990 National Survey of Religious Identification and the 2001 American Religious Identification Survey also the Graduate Center, City University of New York, American Religious Identification Survey, 2001, exhibits 1,3 cited by Susan Jacoby in 1,3--cited by Susan Jacoby in *Freethinkers: A History of American Secularism* (Metropolitan Books, 2004), p. 7.
3. See Engels' letter to J. Bloch of Sept. 21, 1890, in *The Selected Correspondence between Marx and Engels*, trans. by Donna Torr (International Publ., 1942), 475-77.
4. Georg Wilhelm Friedrich Hegel, *The Philosophy of History* (pub. posthumously in 1837--trans. by J. Sibree, 1857, new issue 1947).
5. *The New York Times*, May 22, 2004, p. A7.
6. Arnold Toynbee, *A Study of History*, 6 vols. (Oxford, 1934-61--abridged edition in 2 vols. 1946).
7. Oswald Spengler, *The Decline of the West*, 2. vols (1918, 1922--trans. by Charles Francis Atkinson, 1926).
8. Joseph Tainter, *The Collapse of Complex Societies* (Cambridge, 1988).
9. David Hume, "Of the Rise and Progress of the Arts and Sciences," *Essays: Moral, Political and Literary* (1741-42; Liberty Classics, 1987), p. 112. Hume's exact words: What depends upon a few persons is, in a great measure, to be ascribed to chance, or secret and unknown causes: What arises from a great number, may often be accounted for by determinate and known causes."
10. A scattering of other symptoms include widespread trends in absent and diminished parenthood, reduced attention span in our children, excessive dependence on migrant labor, rampant planned obsolescence, unprecedented levels of klepto-plutocratic greed, a disproportionate prison population, affirmative mediocrity, empty scholarship, bad art, music, poetry and architecture, and, not least, a widening polarization of the American electorate.
11. See the appropriate articles in Gordon Stein, ed., *The Encyclopedia of Unbelief* (Prometheus, 1985).