Evolution As Myth

Scientific Orthodoxy and its Implications for Society

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This work is dedicated to my students who, with their innocence and questions, led me to originally compile these notes. Their inspiration and inquisitiveness encouraged me to insist that issues of controversy be taught from all points of view; and that as such, the socially-accepted doctrine of evolution needed a counter-balance.

> The great enemy of truth is very often not the lie – deliberae, contrived and dishonest – but the myth – persistent, persuasive and unrealistic.
>
> – JFK (Yale speech, 1962)

The word *evolution* was put into circulation in the eighteenth century by Charles Bonnet, who might have made significant contributions to biology if his eyesight had not failed him at the age of thirty-four, forcing him to abandon the direct observation of nature for the fanciful and deceptive paths of imagination.

– Trattner (1938), p214

> *Evolution* is, to put it simply, the result of natural selection working on random mutations.
>
> – Ruse, 1973
> *The Philosophy of Biology*

Myth defined:

- A traditional story of ostensibly historical events that serves to unfold part of the world-view of a people or explain a practice, belief, or natural phenomenon.

- A person or thing having only an imaginary or unverifiable existence.

- An ill-founded belief held uncritically especially by an interested group.

- A fictional tale that seeks to explain the elements of nature.

- ***A traditional explanation of life and its origins which so expresses or coincides with the contemporary spirit that its often radical contradicitons and absurdities are never apparent, in that they express the basic presuppositions, however untenable, of everyday life and thought.*** (Rushdoony)

(The term ***myth*** is used in this work as a *double entendre* and is meant to confront the doctrine of evolution as presented in schools, textbooks, and most of scientific literature today; while at the same time recognizing the merit of ideological evolution as the formidable cultural myth of origins that it is.)

– "People who don't believe in God will believe in anything." (Chesterton) –

> With the failure of its many efforts, science has been left in the somewhat embarassing position of having to postulate theories of living origins which it could not demonstrate. After having chided the theologian for his reliance on myth and miracle, science found itself in the unenviable position of having to create a mythology of its own: Namely, the assumption that what, after long effort could not be proved to take place today had, in truth, taken place in the primeval past.
>
> – Loren Eiseley, evolutionist
> *The Immense Journey*

PROLOGUE

In the spring of 1990 I had the opportunity to visit and explore the American Southwest, a vast and most significant geological region. Much of this exploration involved visiting the area's eight national parks. During the following year I continued this research in the Northwestern area, at Crater Lake, Mt. St. Helens, and Yellowstone National Park.

The United States Government, through its agency, the National Park Service, has taken upon itself the mission of promoting the ideas of organic evolution and historical geology through its particular interpretation of the natural resources with which it has been entrusted. In dogmatic fashion the geological column of the evolutionary model, covering an imagined expanse of some 5 billion years, is presented as the only explanation for the evidence lying before one's eyes.

But as occurs with any belief system, basic assumptions must be considered. Is it really possible to believe in the Uniformitarian Principle upon which historical geology and biological evolution are based? Such a principle seems truly *incredible* in the fullest sense of the word.

The Uniformitarian Principle, Organic Evolution, and Historical Geology are recent ideas in human recorded history. To the ancients the explanation for the origin of things, and the evidence of things seen, except where mythology became tantamount to belief, was understood to be the result of a marvelous creation and a cataclysmic destruction. Could it be possible for modern, sophisticated, intelligent minds to return to such an explanation, even while being overwhelmed by a society-wide mindset that promulgates evolution as fact?

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For me this search actually began years ago. As a child I embraced the Judeo-Christian Biblical accounts of Creation and the Global Flood of Noah, and found this consistent and workable with my personal faith. However, having received my formal education from the secular, public system, I frequently had to confront the question of whether the creation or evolution idea of origins was correct.

In the early years there was a well-meaning reactionary attempt on the part of the Christian church to integrate the two opposing accounts into a belief system called Theistic Evolution. For me this represented only a temporary solution and today this explanation is no longer considered valid by either side (cf. Ramm, 1954; Schaffer, 1972, pp122-133; Morris, 1973A, p69; 1973B, p75; Woodmorappe, 1981, p205; and Rushdoony, 1967, pp45, 54, 59, 99-120).

Eventually I found it necessary to make a dramatic choice; I could no longer claim both sides of the issue. It is as Emerson wrote:

God offers to every man his choice between truth and repose;
Take which you please; you can never have both.

What follows in these pages is the choice I made, and why and how these conclusions are supported by the evidence at hand.

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The goal of this work is to help free the human mind. No longer does modern man need to believe in the doctrine of evolution. Evolution is a cultural myth which harbors profound and adverse effects on the individual as well as civilization.

We must remember that Charles Darwin and Karl Marx were intellectual soul-mates – both were revered by the social Brahmans of their day; but both have increasingly fallen into disrepute. Likewise, their theories, when held under the light of practice, have been recognized as destroyers of he human spirit. Viewed as theories and intellectual constructs, they are neat, tidy – some would say *beautiful*; but when applied in the real world, and utilized to their ultimate effects, they unleash diabolical forces here-to-fore unheard of in human history. When the notions of Darwin and Marx (and Freud in Psychoanalysis) are applied to life and adopted as a world-view, all too frequently they lead to dire and fiendish consequences.

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INTRODUCTION

In order for science to be an effective and efficient discipline of human knowledge it must, of necessity, encompass a broad range of mental and cognitive abilities as well as mechanical aptitudes. An understanding of the roles and importance which evidence and assumptions play in the field of science is essential if one is to trace the development of human thought over the centuries of scientific progress.

The term *science* is applied in several ways to different circumstances. In its purest and most classical form science is a study of the operation of general natural laws especially as observed and tested through the scientific method. In this sense, the method of science demands evidence which is obtained through observation, experimentation, replication, and finally documentation, all of which promotes further research and discovery. These explicit and tangible processes have, over the centuries, come to be known collectively as *The Scientific Method*. In the western world, and specifically in America, this methodology is what is represented to constitute *Science*.

However, in America, as our society has become increasingly secularized and less intuitive, and as science has taken on a more exalted position than perhaps it should, various movements of a more esoteric nature have increasingly sought acceptance under the purview of science. In this regard there is an increasing desire on the part of many to return "science" to its original Latin roots which rendered science to mean "having knowledge", coupled with an abiding quest to seek after more general truths.

If science is to remain specialized and focused, then its scope of inquiry is limited to that of the physical and evidentiary realm. If science is considered in a more general sense then a new standard must be established for American science which allows for and encourages the formation of assumptions, predictions, probabilities, and even cultic persuasion.

It is important that the student of classical western science clearly understand this dichotomy: There is a clear distinction between the views of science held by Newton and Hawking, Einstein and Pasteur, Francis Bacon and Carl Sagan. In the classical sense, Newton, Bacon, and Pasteur are scientists, for they held strictly to the scientific method. Hawking, Sagan, and to an extent Einstein, dabble in areas of metaphysics, rely to a large extent on assumptions, and all too frequently find in their science what seems a religious fervor. To Newton, Bacon and Pasteur, science was simply a tool to discovery. For the followers of Einstein, Hawking and Sagan science has become a sacred quest for the future evolving of mankind and of the universe beyond.

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The difference between the terms *premise* and *assumption*, though often used synonymously, are important enough for our purposes that it ought not be overlooked.

A premise represents a statement of fact or a supposition made or implied as a basis of argument. A premise is something which is taken for granted or advanced as fact, as a principle or fundamental law would be.

An assumption, on the other hand, reflects a lofty attitude; and when applied to the field of science can many times lead to arrogance unless freely challenged. *Assumption* derives its original Latin meaning from the religious and, in the strictest sense, represents the taking up of a person into heaven.

Returning to earth and considering the inherent arrogance implied, the business of proclaiming and codifying assumptions is simply the act of laying claim to, or taking possession of "*the* power." In more general usage, an assumption is the supposition that something is true and is often used as a statement of fact, synonyms being axiom, postulate, and even notion.

It is of considerable debate the extent to which premises and assumptions are to be a part of science. That debate is largely irrelevant on two counts. In the first place, it is an integral part of the human condition to operate on the basis of premises and assumptions, and through such processes the advancement of knowledge is furthered.

More important is the need to educate our society in the ability to recognize premises and assumptions in order that an intelligent and honest pursuit of knowledge can occur. Should this happen, the debate then turns from the concern over the role of supposition in science, to a debate over the assumptions and premises themselves.

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Dogmatic thinking is one of the greatest obstacles which present-day science must overcome. If the generally-accepted understanding of dogmatism – that being an unwarranted stubbornness of opinion – is allowed to predominate our discussion, then only arguments of a profane nature can occur.

But if *dogmatism* is understood as holding to a viewpoint based on insufficiently examined premises and assumptions, then the opportunity exists for the investigation to occur over the matter of issues and less persons. To that extent, every scientific investigation and subsequent discovery should state explicitly the assumptions upon which they are based. Much of this work is based on this understanding; and in most cases the terms *premise* and *assumption* are used interchangeably.

Faith is the substance of things hoped for;
and the evidenceof things unseen.

– 1st-century scribe

ORIGINS

When considering the question of Origins a great deal depends on the premise from which you start. If one believes in a global, cataclysmic flood, then you observe wonders such as the Grand Canyon resulting from a "vast hydro-tectonic cataclysm that literally overturned the earth" (Morris, 1989, p265). You would believe that the *Flood* was "…accompanied by massive and violent earth movements, volcanic action, and dramatic changes in climate and topography" (Huse, 1983, p33).

> Water has the power to rearrange things. If there had been a global flood, you would expect it to scar the planet. (Long, 1990, p66)

When observing the Grand Canyon of Arizona it is obvious that the earth has been scarred. Did it take 1.2 billion years to produce such a scar? In order for one to believe that concept (the "Story" of historical geology) a commitment must be made to evolutionary uniformitarian principles.

The walls of the Grand Canyon are primarily sedimentary (soft) sands, porous limestone, clay-like shales, and various conglomerates. The Colorado River averages 300 feet in width and historically has not been much wider; and yet the South and North rims of the Canyon are 10 miles separate! The Canyon area houses at least 15 earth faults and monoclines, not to mention that the locality is virtually surrounded with volcanic topography. How could one reasonably expect that all has been relatively sedate and uniform for the past 2 billion years?

The interpretive movie at the adjacent Petrified Forest National Park says it well:

> 100 years is a long time to the human mind;
>
> 1,000 years seems an eternity;
>
> 100,000 years goes beyond our imagination;
>
> 1,000,000 years is simply an abstract.
>
> Can the human mind comprehend 200 million years? Perhaps not … **(BUT)… WE SHOULD TRUST THE SCIENTIST FOR WHAT HE KNOWS, and then *JOIN HIM FOR SOME INTERESTING SPECULATION.***

Continue the arithmetic and *visualize* these numbers:

200,000,000 years - the petrification of forests

20,000,000,000 years - the "BIG BANG"!!!

One National Park Service naturalist at Arches National Park tried to demonstrate for his audience what 300 million years means in geological time by using this analogy:

- Suppose one foot-step to equal 100 years -
- Each mile walked would equal 560,000 years -

Question:	How many miles to equal 300,000,000 years?
Answer:	535 miles - the distance from Arches NP to somewhere in Idaho.
Implication:	We can live with that! Most of us, if we had to, could walk that distance without too much difficulty. *Therefore a speculative abstract can be made to sound reasonable!*

But the naturalist should be more honest with his analogies. We don't walk through life 100 years at a time, but instead one day – yes, even one step at a time.

Suppose each step then, to equal one second of time. Taking a leisurely stroll through life, averaging 15 miles per day, a person would need to walk around the world 10,500 times in order to equal 300 million years!

Now that thought is irrational and totally unrealistic; and that is ***only*** 300 million years! According to the doctrine of evolution, the earth is at least 4,600 *million* years old. It would take an extraordinary amount of faith to believe in such a notion.

We have been given tremendous mental faculties which allow us to speculate about things. However, in utilizing these abilities we must be responsible enough to make *reasonable* assumptions that lead us to realistic conclusions.

UNIFORMITARIANISM

The doctrine of evolution subscribes to the uniformitarian assumption, and holds that –

- geological processes (including periodic and innumerable catastrophes) have always been as they are now and the earth's present form was not shaped by a major *cataclysmic* event such as a world-wide flood.

- the processes going on today, such as river erosion, weathering, small-scale volcanic eruptions, sedimentation, earthquake activity, etc., are quite adequate to historically explain the present state of the earth.

- the various rock strata have been laid down over long periods of time with the oldest levels at the bottom.

In summary, presently-operating processes at presently-operating rates under presently-operating conditions account for geologic features of the earth (Wood-morappe, 1981, p218). In other words -

THE PRESENT IS THE KEY TO THE PAST

Why would otherwise intelligent individuals base a preponderance of their theories upon such an assumption? Could it be, as Harris (1990) purports, that "… the concept of deep time, the 4.6 billion years during which the earth developed into its present state, granted the chronological space needed to account for everything from the Grand Canyon to the marine fossils in the Alps?" (p195). As Eiseley (1958/1961) notes: "[In their effort to prove the reality of evolution] the time voyagers had to have vast eons in which to travel and they had, like the earlier voyagers, to bring back the visible spoil of strange coasts to convince their unwilling contemporaries" (p55). After all, "… [n]o theory of evolution can exist without an allotment of time in generous quantities" (p58).

Uniformitarianism was certainly suited to the intellectual voyagers of the last century, when men were weary of the eruptions of revolution and political turmoil, and were ready for doctrines which spoke in terms of peace and tranquility, whether in government or in geology. Nearly a century ago, Galloway (1896) looked back upon the sweeping triumph of uniformitarianism and commented:

> They had settled it that the universal Deluge was to be rejected, Scripture notwithstanding. Away with catastrophes! Let us have only the present rate of change, the gradual operation of present known causes, however slow; and give them plenty of time! A hundred thousand or a million or a few millions of years can be created at will for the purpose. Truth shall be what we make it, and they who do not so accept it shall be held comparable to the persecutors of the great Galileo. (cited in Whitcomb and Morris, 1961/1990, p96)

By rebelling against recorded Scripture evolutionists became foolish, failing to recognize the evidence for what it is. Consider this analogy:

> Jim's friend phoned up in a slight panic. "Look, Jim," he said, "I'm supposed to be meeting a Mr. Wong at the airport in half an hour and I can't possibly make it. I've been unavoidably held up - do you think you could go for me? I've not met Mr. Wong, so I can't tell you what he looks like, but I'm sure you'll have no problem in finding him. Thanks!"
>
> Jim set off at once but could not help feeling rather worried. How would he know Mr. Wong when he reached the airport? He tried to work out his approach. With a name like Wong, the man must be Chinese. And if he is called *Mr*. Wong, he cannot be a young boy - he must be a mature man. If he is Chinese he will be dark-haired, yellow-skinned, rather short in stature and with oriental eyes.

> When Jim reached the airport he hastily scanned the crowd looking for such a figure. Red-haired women, fair children, tall men - all sorts were there, but Jim hardly noticed them in his search for a short, dark Chinese man. After half an hour he had found no one answering that description.
>
> Just then the public address system announced that Mr. Wong was waiting at a certain exit. Jim hurried towards it - to be confronted with a tall, fair European who introduced himself as Mr. Wong. Jim apologized for his friend's absence and his own delay - and realized that his original theory about him had been hopelessly wide of the mark and that it had in fact hampered his search. (Baker, 1976/1990, p30)

Not only does the uniformitarian geologist suffer from such tunnel vision, but he has inexcusably overstepped his bounds of expertise as well. For to study and classify rocks by type and compound is one thing; to attempt to provide an historical perspective to things is yet another.

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There is yet the rock to be found that has imprinted on its surface the date of its origin. All attempts to subscribe chronological significance to the strata and substance of geology are based on diverse and often spurious assumptions, which in turn lead to formulas of questionable value.

When overlooking the Grand Canyon, or even when exploring its immense depths, it is easy to see how one, presupposed to a uniformitarian mindset, could be led to view the formation process as having lasted hundreds of millions of years.

Entering the Canyon area from the less-traveled north rim it is difficult to imagine a more docile, tranquil environment. For change to have occurred to this magnitude, considering present processes of erosion, would surely have necessitated unfathomable spans of time. And since the slow changes we observe have been continuous and observable over the life-time of all living persons it is easy to fall into the trap of *assuming* that it has always been so.

However, global geological history does not support such an assumption. Realizing that the canyon itself is laced with earth-faults, it is rimmed with volcanos, and the entire western region of the continent in which it is housed is seismic and volcanically active, it is not difficult to make the transition from a history of *uniformity* to one of *cataclysmic geology* (cf. Eiseley, 1958/61, pp 66-67).

Indeed, in respect to the region of the western United States, the Grand Canyon of Arizona could be described as a mere drainage ditch in comparison to another great cataclysmic site basin, the vast area encompassing the glacial Lake Missoula, the 2000 square-mile Channeled Scabland in east-central Washington, and the Columbia Plateau.

For decades most geologists vigorously resisted the notion, first presented in the 1920's by J.H. Bretz, that this vast tract of deeply scoured bedrock was formed not during eons of ordinary erosion but in mere days or weeks by floods of almost unimaginable magnitude.

> Only from the air can one easily appreciate the immense channels carved when cataclysmic floods roared hundreds of feet deep across northern Idaho and the lava plains of eastern Washington, on their way down the Columbia River to the Pacific. The floodwaters peeled away thick layers of basaltic lavas, excavating an intricate network of channels, one as deep as 900 feet, and leaving behind colossal gravel bars with giant dunes sculpturing their surfaces, fossil wave-crests up to twenty feet high and 300 feet from crest to crest… The coulees of the Columbia Plateaus then thundered with waterfalls and cataracts of immense proportions. The largest was Dry Falls in the southern part of Grand Coulee. Four hundred feet high and almost three miles wide, it is two and one-half times as high and five times as wide as Niagara Falls today. (Harris, 1990, pp196-197 – emphasis added; for a topographic rendition of this phenomenon cf. "A New View of America", *Popular Science Magazine*, 11/92, p86; also, http://www.pbs.org/wgbh/nova/megaflood/scablands.html)

Realizing that this magnificent geological event occurred within the past several thousand years, is it any wonder that even one trained in uniformitarian evolutionary philosophy could conclude:

> Nature consistently eludes attempts to pin her behavior down to any inflexible scientific law. Most of her earthly work operates at the observed, normal pace, gradually raising mountains by almost imperceptible earthquakes and carving valleys by routine stream-cutting. But the element of the unexpected, of chaos, can interrupt the ostensibly fixed geologic processes with a sudden violence that challenges our sense of natural order. (Harris, 1990, p201)

To actually see sedate geological formation in action one need only travel a few hundred miles northeast of the Grand Canyon of the Colorado where constant, noticeable change is occurring in a relatively stable environment. Geysers erupt, steam pools boil, fumaroles churn, all as a continual reminder as to the fragility of the earth's crust. The National Park Service video at Yellowstone presents the history well: "This area was formed thousands, if not millions of years ago."

If one truly believes *that* formation occurred not millions, but thousands of years ago, then some rather interesting ideas can be suggested and followed which offer, I believe, much more excitement than the uniformitarian model could ever hope to engender. Or to put it another way, as one student of geology so eloquently penned it, "…never has a dogma fostered more uninquisitiveness, narrow-mindedness, and even more hostility than the dogma of uniformitarianism" (Wordmorappe, 1979, p218).

EVIDENCE and EVOLUTION

It is conceded here that the creationist surely states his belief and position in an *a priori* fashion even as the evolutionist does; but the literal creationist position is at least supported by historical writings scribed by human hand. And the models of organic evolution and historical geology are so poorly supported by the facts observed as to make a troubling commentary for anyone who would place their faith in such a doctrine. Consider the following items which refute any suggestions of an earth, five billion years old.

The mountains themselves

As one forest ranger reported to me; "I keep finding fossils of ocean creatures on the tops of some of the highest peaks in North America." The historical geologist and evolutionary paleontologist would say that *that* is because these ranges were uplifted. So what was the highest mountain that needed to be covered by a global flood the result of a geologically cataclysmic event? Perhaps no more than 5,000 feet (Taylor, 1991, p111)? Who can say; and, When did that event occur?

It appears that at one time the entire earth was covered by water; water that contained an abundant assortment of life; life swept away in a cataclysmic destruction.

Indeed, if one were to calculate the dimensions of land vs. the total accumulation of water on planet earth as Nelson (1931/1968) has done, you would find that "The volume of all the ocean water is fifteen times greater than the mass of land protruding above sea level. If all the deeper parts of the ocean were filled by material up to the mean depth, it is said that there would result a universal ocean, covering the entire earth to a depth of one and a half miles" (pp23-24).

Absence of "missing links"

> We do not ask for varieties connecting *'all* extinct and existing forms by the finest graduated steps'. A few instances would be convincing, and *one* single case would be reassuring – but none was ever found. (Lovtrup, 1987, p143)

Louis Leakey, the evolutionary-minded anthropologist intent on proving Darwin correct by finding the elusive "Missing Link", frustrated after realizing that he had, during a lifetime of intense investigation, raised far more questions than he answered, finally said before passing on to his destiny, "We have come here (Africa) to find ***the*** 'Missing Link.' What we have found instead is the existence of a whole chain with missing links" (paraphrase from 1972 TV interview).

Most people recognize that a "chain of missing links" holds no weight and can not be trusted. As incredible as it seems, Evolutionists have not found any transitional forms between kinds or species in the fossils, and no transitions have been documented to have occurred since 1859 when Mr. Darwin struck his chord. Mother nature bears no children; and the Little Mermaid remains a fairy-tale to most of us.

> There has not been a single fossil found where a forelimb is changing into a wing or where scales are evolving into feathers. We have never been able to locate a transition from heavy reptilian bones into the light air-moving bones of birds. These transitional forms must all be found if the idea of evolution is to be given any scientific basis. (Moore, 1973, p88)

Darwin admitted that no species had ever been traced to another, but he thought his hypothesis should be accepted even though the "missing links" had not been found. He did not say *link*, as some think, but *links*. If there is such a thing as biological evolution, it is not just one link – the link between man and the lower forms of life – that is missing, but all the millions of links between millions of species. In fact, if evolution were true, it would act so slowly that there would be an infinite number of links between each two species; or a million times a million links in all, every one of which is missing in the fossil record.

In the *Origin of Species*... Darwin pointed to what he considered to be four probable links: The extinct *Hipparion*, an early three-toed horse, as intermediate between the existing horses and certain older five-toed forms; the extinct Dugong *Halitherium* as intermediate between the modern Sirenia and hoofed quadrupeds; to *Zeuglodon*, an early whale, as a connecting link between the Carnivore and Cetacean; and also to the *Archaeopteryx* as intermediate between modern birds and reptiles.

But as Denton (1986) notes,

> … none of these examples, except in the case of *Hipparion* are particularly convincing intermediates and unfortunately the gap between *Hipparion* and the modern horse is essentially trivial (after all, mutant horses with three toes are occasionally born today). The gap between the primitive sea cow *Halitherium* and the hoofed quadrupeds is enormous, as is the gap between the primitive whale *Zeuglodon* and the carnivores. As to *Archaeopteryx*, although it had certain reptilian characteristics, its wing possessed normal flight feathers and may have been as capable of powered flight as a modern pigeon or crow. *Archaeopteryx* was probably the best intermediate that Darwin was able to name, yet between reptiles and *Archaeopteryx* there was still a very obvious gap." (p57)

Watson (1976) attacks with full force the current faddish notion that the dinosaurs were precursors to modern birds of flight:

> The famous Archaeopteryx is supposed to be 'halfway between a reptile and a bird'; but in fact it is nothing of the sort. Having true wings and feathers, it was a real bird. Its teeth and wing-claws might be called 'reptilian', but that proves nothing. A South American bird called the Hoatzin has wing-claws; so have some bats. And some reptiles are toothless. Some birds have gizzards, others have not. The woodpecker has a long tongue, but most birds do not. We might as well say that a woodpecker is 'halfway between a bird and an anteater' because of its long tongue, or that a chameleon is 'halfway between a lizard and a monkey' because of its hands and prehensile tail….
>
> Many other questions are difficult for an evolutionist to answer, e.g., (a) How did the tailor-bird of India acquire the skill to sew leaves together to form a nest? How many thousands of eggs were smashed before they learned to do it *just right*? (b) How do hundreds of species of birds annually migrate thousands of miles at the right time to the right place? Every autumn the American Golden Plover youngsters fly 3000 miles across the Pacific from Alaska to the island of Hawaii, with no parent birds to guide them, through darkness, cloud and storms, and land plumb on target. WHO taught the birds to navigate?...
>
> The Hebrew word for 'bird' can be used for any flying thing, so here it probably includes (besides birds) flying insects, flying mammals (bats), and flying reptiles (pterodactyls). The theory of evolution cannot account for any *one* of these groups 'evolving' from non-fliers, let alone for all four.
>
> There are two verses in the Book of Isaiah (14:29, 30:6) which mention *flying serpents*. No such creature exists today, but the Greek historian Herodotus, who lived 200 years after Isaiah, gives a detailed description of flying serpents in Arabia (Herodotus: Histories, *Penguin Classics*), and we have no reason to doubt his word. (pp31-32)

In an interview with Luther Sunderland (1988) Dr. Niles Eldredge of The American Museum of Natural History acknowledged that many within the scientific community are inclined to create "imaginative stories" in order to justify their unsubstantiated positions:

> … [I]n making up such accounts one was only limited by one's own imagination and the credulity of the audience…. I admit that an awful lot of that has gotten into the textbooks as though it were true. For instance, the most famous example still on exhibit downstairs (in the American Museum) is the exhibit on horse evolution prepared perhaps 50 years ago. That has been presented as literal truth in textbook after textbook. *Now I think that <u>that</u> is lamentable, particularly because the people who propose these kinds of stories themselves may be aware of the speculative nature of some of the stuff. But by the time it filters down to the textbooks, we've got science as truth and we've got a problem.* (pp77,78, *italics* added)

David Raup (1979), Dean of the Field Museum of Natural History in Chicago, housing one of the largest collections of fossils in the world, has summarized the situation regarding gaps in the fossil record:

> Well, we are now about 120 years after Darwin, and the knowledge of the fossil record has been greatly expanded. We now have a quarter of a million fossil species, but the situation hasn't changed much. *The record for evolution is still surprisingly jerky and, ironically, we have fewer examples of evolutionary transition than we had in Darwin's time.* By this I mean that some of the classic cases of Darwinian change in the fossil record, such as the evolution of the horse in North America, have had to be discarded or modified as a result of more detailed information – what appeared to be a nice simple progression when relatively few data were available now appears to be much less gradualistic. (p25, emphasis added; cited in Sewell, C., 1991, *The Bible And World History*, Appendix, pD-12)

As Denton (1986) notes, "The absence of intermediates, although damaging, was not fatal in 1860, for it was reasonable to hope that many would eventually be found as geological activities increased….

> By stressing the very small fraction of all potentially fossil bearing strata examined in his time, Darwin was able to blunt the criticism of his opponents who found the absence of connecting links irreconcilable with organic evolution…. But virtually all the new fossil species discovered since Darwin's time have… been closely related to known forms….
>
> [W]hile the rocks have continually yielded new and exciting and even bizarre forms of life, dinosaurs, ichthyosaurs and pterosaurs, in the early nineteenth century, *Hallucigensia* and *Tribrachidium* and many others in the twentieth century, what they have never yielded is any of Darwin's myriads of transitional forms….
>
> It is still, as it was in Darwin's day, overwhelmingly true that the first representatives of all the major classes of organisms known to biology are already highly characteristic of their class when they make their initial appearance in the fossil record…. (pp160-162)

Demographics and issues of population

One million years of human evolution is demographically ludicrous. Consider the numbers. Evolutionists say that it took about 1,000,000 years for the human species to produce a billion people. Where is the evidence to support such a statement? What population ratio could possibly uphold such an idea?

The present ratio of population increase is just under 2% per year. If that ratio were constant over a period of only 1075 years, a heterosexual couple would produce a population of 3.5 billion! Even if the rate were cut drastically, to its more historic level of .5%, in one million years the earth's population would have exploded to 10^{2100} !

Just try scribing that number – ten (10) followed by 2,100 zeros – as a just reward for trusting the speculators! (To see what bizarre thinking can occur from such speculation, the graph to the right, taken from the biology textbook *Biological Science: An Ecological Approach*, *p728*, is illustrative.)

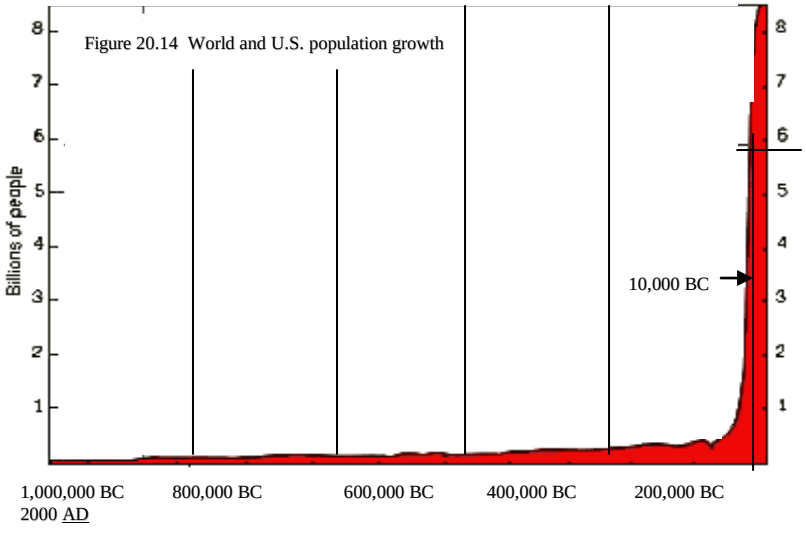

Figure 20.14 World and U.S. population growth

If Uniformitarianism is correct as evolutionists maintain (all constant - that's how it was) then for a present world population of 6 billion would require that each generation wait about 30,000 years to reproduce itself (a rate of .002%)!!! What little

is known about pre-1650 population factors and statistical records of the past 3 to 4 centuries show an historic rate of .002% to be sheer fantasy. [1]

When asked about this problem one Park Service naturalist said the only acceptable explanation to his mind would be that periodically catastrophes occurred (floods, famines, pestilence, epidemics, etc.) that would keep these numbers in check. Although catastrophic checks have had a dramatic impact on historical population growth, demographics experts can only discuss such influences within *thousands* and not *millions* of years (Thompson and Lewis, 1965, pp14-54).

Durant (1950, 1953) in his monumental chronicles of human history cites the Mongol invasion of Islam in 1219 costing 1,300,000 lives in one 13-day battle alone (vol.4, p339). Disease has historically claimed a deadly toll as in 550 and 664 the Yellow Plague devastated Ireland, "…killing, we are unreliably informed, two-thirds of the population (vol.4, p1003). Half of Europe's population was carried off in the successive visitations of Black Death from 1348 to 1365 (vol.5, p30).

We are informed of large population centers in ancient Iraq (Ur of the Caldees) during the times of the Patriarchs, the Middle Bronze Age of 2000-1500 B.C., at which time "Ur, on the banks of the Euphrates River, high upon an artificial plateau, within huge walls, teaming with a quarter million or more residents"… and "Jerico yields evidence of once having been fairly well populated" (Keyes, 1959/62, p16, p21).

Consider the population of the Children of Israel (Jacob) upon entering Egypt (70 male adults), and upon leaving 430 years later with a male population of 600,000 (Genesis 46, Exodus 12:37,40,41). It is interesting to note that this historical glimpse into a concise, demographic sample, occurring some 4,000 years ago, and with a people existing under tremendous persecution, yields a population increase ratio of 2.2% – nearly identical to our ratios today!

Our century alone has witnessed the ravages of two World Wars with upwards of 70 million people slaughtered, a Nazi Holocaust claiming 12 million lives, as well as hundreds of millions more killed in the ongoing world-wide holocaust of the unborn.

To account for a current world population of 6 billion people using *realistic* birth and death rates, and factoring in known and estimated fertility rates, population controls, the effects of hunger and famine, disease, war, pestilence, vice, epidemics, great cities, unwholesome pollution, local catastrophes such as floods, quakes, eruptions, wind storms, etc., one simply has to deal within a few thousand years of earth's history.

The human population has historically, as today, been increasing at near geometric proportions. Over a relatively short period of time, two reasonably healthy human beings can produce progeny in the millions. Any objective historian and demographer will attest to that fact. And the layman working over his genealogical chart will be amazed as to the numbers of offspring his ancestors of just five generations have produced.

Malthus was no doubt overstating the case in 1798 with his projected 3% growth rate, but he wasn't that far off. History and demographics can handle a difference between 3% and .5%; but to entertain as realistic the difference between .5% and .002% is to resort to mythological nonsense (cf., Taylor, 1991, pp337-339, and Appendix L).

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[1] Furthermore, the graph on the preceding page is a trick to the eye, either from attempt to deceive, or from biased ignorance. To be accurate to scale the vertical upturn at year 10,000 B.C. would need to be imperceptibly perpendicular to its vertical axis, or else the horizontal axis would be in excess of 10 inches long! Now that may seem like trifling a point, but I mention it to show how a belief in the evolutionary doctrine would cause one to stretch the truth in order to keep from appearing inane. Here we again have an example of believers in evolution trying to make supportive information palatable for young students who are characteristically untrained in critical thinking. The deception occurs when you consider the graph and are not told that the scale is misrepresented.

The measurement allowed for 12,000 years (10,000 BC to 2,000 AD) is approximately 1/8". According to an accurate scale you would need to scribe 16.5 dimensions of this size into each of the 200,000 year columns, changing their dimension from ½" to 2". This then gives a graph four times wider!

Frozen mastodons in Siberia and Alaska

There are buried an estimated 5 million of these huge mammals, frozen so suddenly that in some cases food is still preserved undigested in their mouths and stomachs. A few of the animals have been preserved whole, but most are torn to pieces. Sheep, camels, rhinos, bison, horses, tigers, oxen, lions and numerous other animals have also been found in Siberian ice.

> All in all, the picture is one of catastrophic death involving millions of animals (in one regional location). No process going on anywhere today is comparable to that which entombed and preserved all those creatures. With such vast numbers of fossils at their disposal, the evolutionists might be expected to have amassed convincing proof of their so-called theory. In particular, we should expect them to be able to point to link fossils showing intermediate kinds of animals linking the major groups such as the invertebrates and - amongst the vertebrates - the fish, amphibia, reptiles, mammals and birds. (Baker, 1976/1990, p12)

Nelson (1931/1968) cites the 19th-century work of Flood-geologist H.H. Howorth who did extensive research principally on the manner in which mammoth remains were found in Siberia. Howorth was not interested in proving the Biblical Flood (he was generally opposed to the Bible) but instead, scientifically sought to prove that the theory of uniformity was false. He was most interested to find "…vast cemeteries teaming with fresh bones and beautiful ivory tusks, and with the carcasses and mummies of the great animals so well preserved in the perpetually frozen soil that the bears and wolves can feed upon them." (p120) Howorth discovered places having so many mammoth remains that "the ground might be said to consist entirely of mammoth bones" (p123).

To Nelson it does not seem improbable that millions of these great animals perished in Siberia in the catastrophe that caused their end, considering that "…since the year 900 AD men have made it a business of collecting the ivory tusks of the region and selling them in China, Arabia, and Europe" (p125).

In refuting the theory of uniformity Howorth noted for his contribution that,

> When nature puts a term to an animal's life in her normal way, it is exceedingly seldom she does so when the animal is young. Animals do not die naturally in crowds when young, and yet we find remains of quite young animals abounding in all classes from Mammoths to mice. How are we to account for this fact save by summoning an abnormal cause? How again can we account for the fact that the mummified animals found in Siberia seem to have been in *robust health, stout and strong*? Is this, again, consistent with a natural death?...
>
> If [their remains] had been exposed to the air and to the severe transitions between mid-winter and mid-summer which characterize arctic latitudes, they would have decayed rapidly; but their state of preservation proves that they were covered over and protected ever since, and this along many degrees of longitude, and by continuous, undisturbed beds of clay and gravel. Every effort to find any still operating cause by which the bones could be so protected and covered in by clay, or gravel, or mud, far away from the great rivers, and in more or less raised mounds and hillocks on the tundra, has utterly failed….However ingeniously and with whatever subtlety we may deal with our evidence, the facts constrain us therefore to one inevitable conclusion, namely, that the mammoth and its companions perished by some wide-spread catastrophe which operated over a wide area and not through the slow process of the ordinary struggle for existence…. (Nelson, 1931/1968, pp129-131)

What ideas did Howorth give for the nature of the monumental catastrophe which killed and buried these animals?

> We want a cause that should kill the animals, and yet not break to pieces their bodies, or even mutilate them; a cause which would in some cases disintegrate the skeletons without weathering the bones. We want a cause that would not merely do this as a widespread plague or murrain might, but one which would bury the bodies as well as kill the animals, which would take up gravel and clay and lay them down again, and which could sweep together animals of different sizes and species, and mix them with trees and other debris of vegetation. What cause competent to do this is known to us? Water would drown the animals and yet would not mutilate their bodies. It would kill them all with

> complete impartiality, irrespective of their strength, age or size. It would take up clay and earth, and cover the bodies with it_ Not only could it do this, but it is *the only cause known to me capable of doing the work on a scale commensurate with the effects we see in Siberia.* (Nelson, 1931/1968, p131)

Mammoth remains continue to be uncovered in Siberia as well as Europe and North America. Baugh and Wilson (1987/1991) note that,

> A report in *Smithsonian* [December 1977, pp61-68] tells of a baby mammoth being found alongside a tributary of the Kolyma River in Northeastern Siberia. Some months before, in June 1977, a prospectors bulldozer had uncovered what proved to be a mammoth carcass. Its internal blood and organs had been preserved. There is a strong case for a dramatic change in climate. A rhinoceros has been found in Siberia, and the rhinoceros is a tropical animal. There are convincing evidences that climatic changes occurred suddenly, and also that animals died "in their stride" as it were….
>
> Howarth documents [mammoth] finds from all over Europe – from the Urals to Poland, from the White Sea to the Black Sea, Germany, France, Hungary, Southern Sweden, The Alps, from the Bering Strait, from the latitude of Rome in Italy, and all over the Mediterranean area.
>
> The evidence of these vast fossil graveyards, extended across an entire continent, points to a water catastrophe of immense proportions. The Flood of Noah's time fits that evidence.
>
> The same story applies to the North American continent…. [A]t Prudhoe Bay, everywhere the oil companies drilled around this area they discovered an ancient tropical forest. It was in a frozen state, not in a petrified state. It is between 1,100 and 1,700 feet down. There are palm trees, pine trees, and tropical foliage in great profusion. In fact, they found them lapped all over each other, just as though they had fallen in that position. (pp99-104)

Until recently it was thought that the huge wooly mammoth became extinct about 12,000 years ago, however reports now surfacing from Siberia, in the former Soviet Union, indicate that mammoth remains have been dated at less than 4,000 years ago. Historical records and legends hold that huge animals such as the mastodons have been contemporaneous to modern man. Does this suggest some rather profound and cataclysmic event that brought about their destruction and immediate preservation?

As I write these words historical catastrophism is experiencing a comeback, putting a great strain on Lyellian/Darwinian uniformitarianism. Witness the recent glossy evolutionary treatise, *The History of Earth: An Illustrated Chronicle Of An Evolving Planet* (1991). In the section entitled "The New Catastrophism", author W.K. Hartmann states that,

> During most of the twentieth century, geology textbooks have extoled Hutton/Darwin/Lyell-style uniformitarianism and have stated that catastrophes were not needed to explain geological findings. The 1980's changed everything. Close observations of the stratigraphic record revealed that radical changes in species really did occur…. Thus, unknown to earlier geologists, *who taught their students that "the present is the key to the past,"* a few events in Earth's history really were catastrophic. The new ideas are sometimes called "the new catastrophism," or "neo-catastrophism." (p17, *italics* added)

While studying about the mammoths and their catastrophic demise for his book *Darwin Retried*, Norman Macbeth, in 1971, took a "snapshot" of contemporary uniformitarian thought and the dilemma of disagreeable catastrophes.

> Catastrophes have been taboo for a century among the orthodox [evolutionists]…. But a change may be impending. *Newsweek* for 13 December 1963 reported that "…many geologists at the recent meeting of the American Geological Society were advising the rehabilitation of catastrophe." Such language must have made Darwin and Lyell turn in their graves. (p116)

Spontaneous generation of life

Although scientifically disproved by Francisco Redi and Louis Pasteur, most evolutionists persist in perpetrating this ancient myth as their explanation for the origin of life.

In public schools today the idea is presented that life has evolved from spontaneous generation. It is not taught precisely the way Greek philosophers presented the *generation* concept, arguing that rats, mice, snakes, and other such organisms sprang spontaneously from inorganic material as complete animals. But the modern concept of *abiogenesis* represents the feeble attempt at scientific "truth;" presented by those who cannot explain life, let alone its origin. They cannot account for the various complexities that have developed from supposedly simple forms, nor the development of adult consciousness out of unconscious living organisms.

My daughter's biology textbook says:

> Attempts to explain the diversity of type and unity of pattern of living things are probably as old as humankind itself. As early as 600 B.C. a Greek scholar hypothesized a gradual evolution from a formless condition, such as mud, to one of organic coherence, such as a frog. *He understood what **today** we would call adaptation*…. Later Greek scholars developed a crude outline of an evolution concept. It hypothesized that the development of life was a gradual process, that plants were present on earth before animals, and that better-adapted forms replaced ill-adapted ones. *Those insights can be considered an early form of what we now call **the theory of evolution***. (*Biological Science: An Ecological Approach*, Sixth edition, 1987, p269, emphasis added)

At times these humanistically-based textbooks are sufficiently farcical that one could well laugh, if it weren't for the sad fact that the contributors actually believe what they've written; and the students they indoctrinate with their glitzy products aren't given the skills necessary to critically analyze the information they're given.

Consider the fact, first of all, that at the beginning of this quote a time-frame is established; "…as old as humankind itself,…" which is then implied as shortly before 600 B.C. That logic probably does not set well with evolutionary zealots who would wish to give humankind a bit more history!

Even more bizarre, on the same page on which this quote appears, the caption to the accompanying illustration reads:

> People once believed that living organisms could arise from lifeless substances, such as mud or the remains of dead plants or animals. *These misconceptions persisted until the end of the 19th century.* (emphasis added)

The textbook contributors just told us that,

> "Those insights – **[mud → frog → adaptation → survival → gradualness]** can be considered an early form of what we now call the *theory of evolution."*

Indeed, in the final analysis, the idea of evolution teaches that everything came from nothing; and to nothing everything must return! (For further discussion of the referenced biology textbook, see Schweigerdt, 1992a, and 1992b.)

The recently released Prentice Hall biology textbook for 7th-graders entitled *Cells: Building Blocks of Life* (1993) even goes so far as to claim as its own legitimate conclusion that spontaneous generation must have occurred. After acknowledging the discoveries of Redi and Pasteur, disproving the mythological notions of spontaneous generation, these textbook authors have the audacity to write:

> Could spontaneous generation have occurred on early Earth, even though it does not occur today? The answer is yes. The conditions on early Earth were such that living things could arise from the soup of chemicals that formed on the Earth. Today that soup no longer exists. The formation of life as it occurred on early Earth cannot occur on its own again – at least not on Earth. On other planets – who knows! (Maton, et al., 1993, pp20-21)

Biologist and winner of the 1967 Nobel Prize in Science, G. Wald (1982) notes that:

> When it comes to the origin of life on this earth, there are only two possibilities: Creation or spontaneous generation (evolution). There is no third way. Spontaneous generation was disproved 100 years ago, but that leads us only to one other conclusion: that of supernatural creation. We cannot accept that on philosophical grounds (personal reasons); therefore, we choose to believe the impossible: that life arose spontaneously by chance. (quoted by D. Lindsay in *The Dinosaur Dilemma*, 1982, pp4-14; cited in Sewell, C., 1991, D-40)

But there are die-hard believers in evolution who will go to any length in their desperate attempt to provide that third alternative. In commenting on the great improbability of the spontaneous generation of a reproducing system, Nobel Prize winner and codiscoverer of DNA, Francis Crick, transcends this world and writes:

> If it turns out that the early atmosphere was not reducing but contained a fair amount of oxygen, then the picture is more complicated…. If this were really true, it would support the idea of Directed Panspermia, because planets elsewhere in the universe may have had a more reducing atmosphere and thus have on them a more favorable prebiotic soup. (cited in Sunderland, 1988, pp54-55)

Indeed, Sir Fred Hoyle, famous British mathematician and astronomer, and life-long atheist recently wrote:

> Once we see, however, that the probability of life originating at random is so utterly miniscule as to make it absurd, it becomes sensible to think that the favorable properties of physics, on which life depends, are in every respect deliberate…. It is, therefore, almost inevitable that our own measure of intelligence must reflect higher intelligences… even to the limit of God. (1981, *Evolution From Space*, pp141,144; cited in Sunderland, 1988, p57)

Hoyle went on to say that there are 2,000 complex enzymes required for a living organism but not a single one of these could have formed on Earth by random, shuffling processes in even 20 billion years.

> I don't know how long it is going to be before astronomers generally recognize that the combinatorial arrangement of not even one among the many thousands of biopolymers on which life depends could have been arrived at by natural processes here on earth. Astronomers will have a little difficulty in understanding this because they will be assured by biologists that it is not so, the biologists having been assured in their turn by others that it is not so. The 'others' are a group of persons who believe, quite openly, in mathematical miracles. *They advocate the belief that tucked away in nature, outside of normal physics, there is a law which performs miracles (provided the miracles are in the aid of biology)*. This curious situation sits oddly on a profession that for long has been dedicated to coming up with logical explanations of biblical miracles…. It is quite otherwise, however, with the modern miracle workers, who are always to be found living in the twilight fringes of thermodynamics. ("The Big Bang in Astronomy," *New Scientist*, v.92, no.1280, 19 November 1981, pp521-27, emphasis added; cited in Sunderland, 1988, p60)

Brownlow (1979) provides a classic example of speculative evolutionary reasoning (held forth as fact – "trust us, we know what we're saying") in his Prentice Hall *Geochemistry* textbook as he attempts to "prove" the occurrence of spontaneous generation:

> Special conditions *may have* been required for the next step, the combination of biomonomers into the structurally complicated biopolymers, such as proteins. Only relatively simple biopolymers have been formed in laboratory experiments, and none of the extremely complex polymers of living organisms has been synthesized. It *seems* probable that fairly special (but not necessarily unusual) conditions were required for the evolution of biopolymers. For instance, this evolution *may have* taken place in isolated ponds where the necessary biomonomers were concentrated by evaporation and a chemical catalyst was present to make certain reactions occur efficiently.

> On the other hand, this evolution *may have* occurred in the oceans, where the clay minerals *could have* served as concentrators and as catalysts. We know that clay minerals have chemically active surfaces and interact with organic molecules. Laboratory research has shown that clay minerals can bring together different organic molecules and can stabilize amino acids. All this is, however, *pure speculation.* We *know very little* about the formation of biopolymers on the earth by non-biological processes. The next step, the formation of a living thing, is also *not understood* in terms of chemical processes. This step marks the actual origin of life and was followed by biological evolution. (pp262-4, italics added)

• • • • •

Much ridicule and scorn has been cast upon the Christian Church for its "unscientific" reaction to Galileo, the notion of the helio-centric universe, and to the advancement of science in general. This anti-Galileo (anti-science) argument is considered the clincher in any debate where the lofty intellectualism of the anointed is thrown at the simple faith of the Bible believer. In reality, the story is more complicated than that.

Galileo Galilei, the Italian scientist, was denounced by the Roman Catholic Church which had, by his time, adopted the scientifically-touted notions of Ptolemy who theorized a geo-centric universe. The Roman church had grossly abused Biblical standards in many doctrinal areas, and matters dealing with the physical universe were no exception. In Galileo's world the contextual framework and social milieu was such that science and the Church were joined on the question of the earth's place in the heavens.

> British author James Burke tells an interesting anecdote that explains why understanding the context of another culture's belief is important. "Someone once observed to the eminent philosopher Wittgenstein how stupid medieval Europeans… must have been that they could have looked at the sky and thought that the sun was circling the earth." According to Burke, Wittgenstein is said to have replied, "I agree. But I wonder what it would have looked like if the sun *had* been circling the earth." (Rohr, 1988, p16)

Most attempts at aspersion are made by pitting Galileo against the Bible; when, in reality, the confrontation was between Galileo and the Roman church with its compromised theology. In a letter written to the Grand Duchess Christina in 1644, Galileo said:

> … I do not mean to infer that we need not have an extraordinary esteem for the passages of holy Scripture. On the contrary, having arrived at any certainties in physics, we ought to utilize these as the most appropriate aids in the true exposition of the Bible and in the investigation of those meanings which are necessarily contained therein, for these must be concordant with demonstrated truths. I should judge that the authority of the Bible was designed to persuade men of those articles and propositions which, surpassing all human reasoning, could not be made credible by science, or by any other means than through the very mouth of the Holy Spirit….
>
> Now if the Holy Spirit has purposely neglected to teach us propositions of this sort as irrelevant to the highest goal (that is, to our salvation), how can anyone affirm that it is obligatory to take sides on them, and that one belief is required by faith, while the other side is erroneous? Can an opinion be heretical and yet have no concern with the salvation of souls? Can the Holy Ghost be asserted not to have intended teaching us something that does concern our salvation? I would say here something that was heard from an ecclesiastic of the most eminent degree: 'That the intention of the Holy Ghost is to teach us how one goes to heaven, not how heaven goes….” (cited in Rohr, 1988, pp20-21)

Recall that Galileo's presence before the Roman Inquisition occurred in the context of the Christian Reformation, a most unsettled time in the European world. As Whitehead (1925) notes, to understand *that* context is to interpret events differently then present-day historical revisionists would have us believe:

> In every way [modern science] contrasts with the contemporary religious movement. The Reformation was a popular uprising, and for a century and a half drenched Europe in blood. The

> beginnings of the scientific movement were confined to a minority among the intellectual elite. In a generation which saw the Thirty Year's War and remembered Alva in the Netherlands, the worst that happened to men of science was that Galileo suffered an honorable detention and a mild reproof, before dying peacefully in his bed. The way in which the persecution of Galileo has been remembered is a tribute to the quiet commencement of the most intimate change in outlook which the human race had yet encountered. Since a babe was born in a manger, it may be doubted whether so great a thing has happened with so little stir. (p10)

Perhaps a more impressive and practical example, one which clearly addresses the mythology of evolution, is the account of Louis Pasteur and the doctrine of spontaneous generation.

Pasteur ran afoul of the scientific community when, after having discovered the fermentation process and then giving the world the life-saving process of pasteurization, he was challenged to discover where bacteria came from in the first place. In doing so he ran head-long into the entrenched notion that life originated out of nothing, the ancient fallacy to which most evolutionary theorists still adhere to today (cf. "How Life Began: New Discoveries Provide Some Surprising Answers to an Age-old Question", *Time*, October 11, 1993).

Until the seventeenth century the community of natural scientists took for granted that life originated spontaneously. Francesco Redi challenged this doctrine when he showed that meat covered with a fine gauze would not develop maggots because the flies laid their eggs on the gauze instead of the meat. But,

> [Spontaneous generation] was revived in 1858 by Henri Pouchet, director of the Museum of Natural History at Rouen, who sent a note to the Academy of Sciences at Paris asserting the truth of spontaneous generation, and declaring that he was prepared to prove it by vigorous experiment. Pouchet's assertion was, of course, a direct challenge to Pasteur's theory which he called a ridiculous fiction. If fermentation could come about spontaneously, then micro-organisms might arise in spite of pasteurization; moreover, one could not control their spread from person to person in causing disease.
>
> An intense struggle now began between the adherents of Pouchet with their doctrine of spontaneous generation and Pasteur who was out to convince the world that life as we know it never originates spontaneously, that minute organisms – bacteria, germs, microbes – are far more active agents in this world than had ever been guessed; that breadmaking, cheese making, tobacco curing, tanning, are carried out by germ action. It was supposed that meat putrefied and decayed of its own accord and that it somehow produced the bacteria in the process. But as a matter of fact, Pasteur claimed that the real explanation was just the other way round: that meat would not putrefy of itself but that it was made to decay by bacteria which had got into it. (Trattner, 1938, pp286-287)

Although Pasteur's experiments showed beyond doubt that spontaneous generation does not occur; indeed, he went on to confidently assert that "Never will the doctrine of spontaneous generation recover from the blow dealt it by this simple experiment," the notion persisted and, even today, reveals itself in modern biology textbooks.

If one is to indoctrinate students in the tenets of evolutionary theory, then the origin of life question is paramount to that purpose. And since the cornerstone of classical evolutionary thought is the notion that no Creator exists (or ever existed) and that life originated spontaneously, the doctrine of spontaneous generation continues today.

As Trattner (1938) noted more than a half-century ago, there existed within the scientific community of Pasteur's day an attitude paralleled in much of what passes for science today: "It is hard to account for [this] attitude other than on the score of jealousy, stubbornness or stupidity" (p294).

Those who uncritically hold to the Darwinian evolutionary notion, and who believe that life originated spontaneously, without Creative hand, rest their belief on one basic and ultimate assumption – that there is no personal, ever-present God. When it comes to accounting scientifically for all that exists, they approach every question they encounter by saying, "Since there is no God, this must be the way that it happened."

Oparin's Origin of Life theory

In attempting to deal with the question of life's origin, Russian evolutionary scientist A.I. Oparin developed the theory of chemical evolution, and in so doing postulated that the Earth's early atmosphere consisted solely of methane, ammonia, hydrogen, and water vapor. This theory received wide acceptance and circulation by a scientific community so willing to believe (often times uncritically) the thoughts and ideas of "eminent" people in the fields of science. The basic problem with Oparin's model is that the radiant energy from the Sun necessary to cause chemical reactions in the atmosphere sufficient to produce organic compounds would also, by proven fact, have been lethal to cell function in all forms (Barnes, 1973, pp61-67).

Two American chemists, Stanley Miller and Harold Urey experimented with Oparin's theory by subjecting an artificial mixture of the right chemicals to the energy of high-voltage sparks for one week. After that time, amino acids and other simple geochemical compounds had formed.

The high school biology textbook *Biological Science: An Ecological Approach*, 6th Ed. (1987), highlights the Miller/Urey experiment in proposing how early cells evolved. What is so profoundly interesting about the presentation is the way the authors have openly (and honestly) shared how speculative the whole notion of chemical evolution really is. The heading of this section is entitled "The First Cells *Were Probably* Heterotrophs" and is cited here with emphasis added:

THE FIRST CELLS WERE PROBABLY HETEROTROPHS

> As time went by, it seems likely that some amino acids in the "organic soup" formed polypeptides and proteins. Other simple organic molecules also might have formed larger, more complex molecules. Eventually, some of the larger molecules might have combined into clusters, and the clusters might have merged to form a primitive cell.
>
> **That is a far-reaching assumption**. The formation of primitive cells from clusters of organic compounds is more difficult to explain than the formation of the organic compounds themselves under the earth's primitive conditions. The assumption is that at first, large organic compounds in the organic soup were grouped together at random, forming many types of aggregates. Those different types of aggregates might have competed with each other for the organic molecules in the soup that were needed for growth and reproduction. In that competition, some aggregates would have had a composition and an organization that made them more successful than other aggregates. Eventually, natural selection crowded out the less successful ones.
>
> Scientists have proposed different models for a pre-cell. A Russian scientist, A.I. Oparin, suggested that pre-cells might have been like coacervates. Coacervates are clusters of proteins or protein-like substances held together in small droplets within a surrounding liquid…. Sidney Fox, of the University of Miami, thinks pre-cells were more like microspheres, cooling droplets from a hot water solution of polypeptides. Each microsphere forms its own double-layered boundary as it cools.
>
> The ancestors of primitive cells could easily have been of several kinds. Different kinds, with different capabilities, might have come together. In that way some of the features could have developed that are seen today in the simplest heterotrophic bacteria. The cell ancestors formed a membrane that separated them from their external world. They began to grow by using compounds in the surrounding environment for spare parts and energy. They evolved a process of reproduction, producing others like themselves. (p349)

The authors began this highly spurious presentation by asking, "Are [these] speculations of origins reasonable?" Apparently to them speculation and "far-reaching assumption" is sufficient to demonstrate the origins of life, for they easily move from speculation to cell ancestors *forming*, then *growing*, then *evolving*, and finally *reproducing*.

This is the best presentation that the notion of biological evolution can put forward to account for life's origin as evidenced by the fact that it is the theory which the scientific community would have our children learn through their textbooks. And this to the exclusion of other legitimate explanations.

This pathetic attempt at explanation violates every tenet of logical thinking. When a premise seeks its proof within a logical context its final tests are reasonableness and credibility. It is up to the observer to hear the arguments presented for evolution and determine if they are reasonable. Is it any wonder that increasingly people are expressing their lack of faith in evolution as a doctrine void of any semblance of credibility?

Furthermore, if anything, the Miller/Urey experiment is a perfect example of the teleological theory of origins, showing intelligent design and purpose in the universe. Textbook authors never relate (and students are not shown) the most obvious implications that the researchers inadvertently demonstrated – the fact that for the experiment to show that life formed spontaneously, in order for it to be carried out, it had to be designed, it had a purpose, and it was performed by individuals having a great deal of intelligence (although be it somewhat misguided!).

In reference to Urey/Miller, the two questions I ask my students are: (1) Is it reasonable to assume that the simple building blocks of life would have formed if the four gasses were left to their own devices?; and, (2) What role does the glass beaker have in all of this; is there a similar, corresponding device in the universe which could have housed the necessary elements for life to form?

When my students have finished reading the previous synopsis of the evolutionary explanations to the origin of life and are then asked what all of this speculating amounts to they readily see the implication and invariably answer, "guessing". All present-day evolutionary-biased biology textbooks have similar discussions; its just that *Biological Science*... (to its credit) does it in such a distinct and indiscreet manner.

The reason evolutionists fail to acknowledge the speculative (hopeful guessing) of their doctrine is because they have adapted a prescribed philosophical belief in chemical abiogenesis (spontaneous generation) as the explanation for evolutionary origins. And in doing so they fail to realize the basic assumptions upon which even their speculations are based.

Davis and Kenyon (1993) note that Oparin's hypothesis is founded on seven (7) basic, and spurious assumptions:

> (1) Reducing Atmosphere, the earth's atmosphere contained little or no oxygen; (2) Preservation, the simple organic compounds formed in the soup were somehow preserved, so that the energy that caused them to form did not also destroy them; (3) Reservation, enough biological compounds were reserved for combination with the "right" molecules (rather than being tied up by reacting with useless molecules) to form the large molecules useful to life; (4) Uniform Orientation, only "left-handed" or L-amino acids combined to produce the proteins of life, and only the "right-handed" or D-sugars reacted to produce polysaccharides, or nucleotides; (5) Simultaneous Origins, the genetic machinery that tells the cell how to produce protein and the protein required to build that genetic machinery both originated gradually and were present and functioning in the first reproducing protocells; (6) Specified Complexity, the highly organized arrangement of thousands of parts in the chemical machinery needed to accomplish specialized functions originated gradually in coacervates or other protocells; and (7) Photosynthesis, a chemical system called photosynthesis, the process of capturing, storing, and using the energy of sunlight to make food, gradually developed within coacervates. (pp43-46)

These were the assumptions which Miller/Urey attempted to prove in their experiments. However, beyond the layered assumptions of Oparin's model, and the several problems associated therein, and beyond all of the far-reaching speculating inherent in Oparin's metaphysical logic, Miller/Urey encountered several problems, most notably the chemical make-up of the early atmosphere.

> Recall that Assumption No. 1 is that the earth's early atmosphere contained virtually no oxygen. If oxygen had been present in the earth's early atmosphere (even 1% by volume compared to 21% today) it would have been impossible for organic compounds to have accumulated the way they did in Miller's experiment…. [and yet]… Strong chemical arguments have been set forth favoring the presence in the early atmosphere of oxygen in significant amounts (H. Clemmey and N. Badham, 1982, *Geology*, 10,141-146, and J. H. Carver, 1981, *Nature* 292,136-138). Recently discovered

> geological evidence indicates that significant amounts of oxygen may well have been present in the earth's atmosphere at the same time that the first life was supposed to be developing….
>
> It is worth noting that we have no geological evidence of any massive prelife (prebiotic) accumulation of organic matter. The clay deposits of the time, found in abundance, would have retained large amounts of hydrocarbons and nitrogen-rich compounds from the prebiotic soup. The surface of the clay has tiny cavities that would have imprisoned these molecules where they would still be evident today. Thus if the "prebiotic soup" had really existed, we would expect to find such surviving traces of it in the oldest rocks, but we do not. (J. Brooks and G. Shaw, 1973, *Origin and Development of Living Systems*)
>
> [Furthermore] … Miller's experimental design was faulty. The trap used in his apparatus did not realistically correspond with any reasonable protective mechanism presumed to have existed on the early earth [recall the beaker question?]. (Davis and Kenyon, 1993, pp48-50)

Davis and Kenyon (1993) complete their discussion of Oparin-Miller/Urey by noting that "…it seems highly probable that the origin of life on earth involved the fashioning of molecular complexity in a way similar to the production of manufactured items. In fact, the living cell (even the very simplest one) has the complexity of a miniaturized, automated factory…. Well-designed experiments on the origin of life should continue. Modern ideas of spontaneous generation or chemical evolution, however, do not realistically account for the appearance of biological complexity in prelife chemical systems. (p57)

Statistical improbability and mathematical anecdotes

Bad news for gamblers: The mathematical probability of winning a grand prize with a single ticket in the California Lottery is about 1 in 5.2 million! Those odds are generous, indeed *give-aways*, compared to the impossible odds with which the evolutionist must contend in trying to prove his point.

The discipline of mathematics is fatal to the organic evolution model. Mathematicians have thoroughly analyzed the chances of life occurring through the evolutionary process and concluded that even under the most ideal of circumstances the probability factor would not be simply one over 1,000,000,000; but one over a number so huge that if we typed out the zeros on a typewriter, single spaced, on both sides of the page, the pages would create a mountain that would go beyond the moon and fill the solar system.

Sunderland (1988) says:

> It is often stated by evolutionists that with enough time, anything could happen regardless of how improbable it might be. Nobel prize winner George Wald has said, "Time is the hero of the plot. Given enough time anything can happen – the impossible becomes probable, the improbable becomes certain." Prominent evolutionist Julian Huxley has stated that, given enough time, monkeys typing on typewriters could eventually type out the complete works of Shakespeare. Such uninformed statements have a dramatic effect on the layman, and even persons who have the mathematical background to know better often fail to make the simple calculations that would reveal the ridiculousness of the conjecture. For example, if there were monkeys typing on typewriters covering every square foot of the Earth's surface and each one typed at random at the fantastic rate of ten characters a second for 30 billion years, there would not be the slightest reasonable chance that a single one would type out a single specific five word sentence of 31 letters, spaces, and punctuation. (The actual probability is less than one chance in a trillion.) Yet Huxley was permitted to make the preposterous statement that monkeys could type out the complete works of Shakespeare, and no evolutionary scientist or mathematician who knew better raised a single objection. (p61)

The average person fails to understand the distinction between *possible* and *probable* when it comes to scientific developments; indeed, it would appear that most scientists have forgotten the distinction as well. It is an understanding that is most vital to the discussion of origins.

> … [It] is one thing to show that an evolutionary route is *possible* in the time available, quite another to show that it is also *probable*. Take the use of the eye, for example. Even if Darwin had been able to

> demonstrate the existence of a continuous sequence of increasingly complex organs of sight, leading in tiny evolutionary steps from the simplest imaginable photosensitive spot to the perfection of the vertebrate camera eye in a single phylogenetic line (in fact, no such series exists in any known lineage) and even if he had been able to show by quantitative estimates that the immense number of mutational steps could have occurred and been substituted by natural selection in the time available, this would only have meant that evolution by natural selection was *possible*. It would not have meant that it was *probable*.
>
> … Darwin himself was often prone to self-doubt over the sheer enormity of his own claims: "Although the belief that an organ so perfect as the eye could have been formed by natural selection, is enough to stagger any one…. I have felt the difficulty far too keenly to be surprised at others hesitating to extend the principle of natural selection to so startling a length. (Denton, 1985, p60; orig. Darwin, C., 1902, *The Origin of Species*, pp250-254)

On eyes. . .

In fact the eye did not evolve from some light-sensitive spot on the skin as is alleged by proponents of Darwinian Evolution. Sunderland (1988) notes that,

> Some of the most complex [anatomical] structures are present in the Cambrian [oldest fossil-bearing strata] organisms, such as the eye of the squid, which is similar to the human eye.
>
> The squid eye, with its lens, pupil, and optic nerve, is obviously fully functional… Also, the various trilobites found in the Cambrian already possessed very complex eyes. Evolutionists admit that trilobites would have had to evolve eyes separately about 30 or 40 different times since they had such distinctively different types of eyes.
>
> [William] Paley made much of the intricacy and perfection of the eye and said that it could have no other interpretation than that it was not the product of chance. In fact, he began his book with this very point. Since Darwin was quite familiar with Paley's book, it is no wonder that he wrote that the eye turned him cold all over when he pondered its origin. He said:
>
> > To suppose that the eye with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have been formed by natural selection, seems, I confess, absurd in the highest degree. (p52)

Darwin (1859/1963) went on to reveal his strand of logic as he grappled with his most feared nemesis, the biological eye. The careful reader of Darwin who grasps this logical progression will then understand how such a far-fetched notion could be adhered to by those desperate for any system professing to provide answers to ultimate questions.

> Reason tells me, that *if* numerous gradations from a simple and imperfect eye to one complex and perfect can be shown to exist, each grade being useful to its possessor, as is certainly the case; *if further*, the eye ever varies and the variations be inherited, as is likewise certainly the case; *and if* such variations should be useful to any animal under changing conditions of life, then the difficulty of believing that a perfect and complex eye could be formed by natural selection, *though insuperable by our imagination*, should not be considered as subversive of the theory….
>
> When we reflect on these facts, here given much too briefly, with respect to the wide, diversified, and graduated range of structure in the eyes of the lower animals; and when we bear in mind how small the number of all living forms must be in comparison with those which have become extinct, the difficulty ceases to be very great in believing that natural selection may have converted the simple apparatus of an optic nerve, coated with pigment and invested by transparent membrane, into an optical instrument as perfect as is possessed by any member of the Articulate Class.
>
> *He who will go thus far, ought not to hesitate to go one step further*, if he finds on finishing this volume that large bodies of facts, otherwise inexplicable, can be explained by the theory of modification through natural selection; he ought to admit that with a structure even as perfect as an

> eagle's eye might thus be formed, although in this case he does not know the transitional states. (p155, emphasis added)

Garrett Hardin, in his *Nature and Man's Fate* (1961) struggled with evolution and the eye, starting his inquiry with questions, and ending with questions:

> How then are we to account for the evolution of such a complicated organ as the eye? …If even the slightest thing is wrong – if the retina is missing, or the lens opaque, or the dimensions in error – the eye fails to form a recognizable image and is consequently useless. Since it must be either perfect, or perfectly useless, how could it have evolved by small, successive Darwinian steps?...
>
> [Consider] the human eye… which Darwin freely conceded to constitute a severe strain on his theory of evolution. Is so simple a principle as natural selection equal to explaining so complex a structure as the image-producing eye? Can the step-by-step process of Darwinian evolution carry adaptation so far? Competent opinion has wavered on this point." (cited in Macbeth, 1971, pp100-101)

Sir Isaac Newton, arguably the most revered and respected scientist of all time, saw the eye as the epitome of God's creation and wondered how blind chance could know that there was light thereby creating the necessity for such an instrument. The eye, in all its majestic wonder, obviously led Newton to a different conclusion concerning origins than it did Darwin:

> Whence is it that the eyes of all sorts of living creatures are transparent to the very bottom, and the only transparent members in the body, having on the outside a hard transparent skin and within transparent humors, with a crystalline lens in the middle and a pupil before the lens, all of them so finely shaped and fitted for vision that no artist can mend them?...
>
> These and suchlike considerations always have and ever will prevail with mankind to believe that there is a Being who made all things and has all things in his power…. We are, therefore, to acknowledge one God, infinite, eternal, omnipresent, omniscient, omnipotent, the Creator of all things, most wise, most just, most good, most holy. We must love him, fear him, honor him, trust in him, pray to him, give him thanks, praise him, hallow his name, obey his commandments, and set times apart for his service…. (Newton, c.1690, cited in Thayer, 1953, pp65-66)

And lest some think that Newton placed his interest and skill in science over that of personal faith, these words should take to task any such notion:

> [B]y the same power by which he gave life at first to every species of animals he is able to revive the dead, and has revived Jesus Christ our Redeemer, who has gone into the heavens to receive a kingdom and prepare a place for us, and is next in dignity to God and may be worshiped as the Lamb of God…. (Thayer, 1953, pp66-67)

. . . and flies

The eye was not the only anatomical organ destined to cause Darwin apprehension about his notions.

> The tail of the giraffe looks like an artificially constructed fly-flapper; and it seems at first incredible that this could have been adapted for its present purpose by successive slight modifications, each better and better fitted, for so trifling an object as to drive away flies; yet we should pause before being too positive even in this case, for we know that the distribution and existence of cattle and other animals in South America absolutely depend on their power of resisting the attacks of insects: so that individuals which could by any means defend themselves from these small enemies would be able to range into new pastures and thus gain a great advantage. It is not that the larger quadrupeds are actually destroyed (except in some rare cases) by flies, but they are incessantly harassed and their

> strength reduced, so that they are more subject to disease, or not so well enabled in a coming dearth to search for food, or to escape from beasts of prey. (Darwin, 1859/1963, pp169-170)

The struggle Darwinism has in this regard is the complete lack of any transitional forms in progressive evolution as has been noted in an earlier section of this work. In attempting to deal with the inconsistencies in his thinking, Darwin shuns observation with its lack of evidences for transition, and appeals to extinction in the speculative wish that at some later date a fossilized transitional form would be found.

Even the revelation of transitional fossil forms, if they did exist, would have given Darwin little comfort; for he realized –

> How differently constructed is the feathered wing of a bird and the membrane-covered wing of a bat; and still more so the four wings of a butterfly, the two wings of a fly, and the two wings with the elytra of a beetle. (1859/1963, p166)

The process of transition compounds the difficulties for the doctrine of evolution since, by definition, the progress of the developing form must be positively directed and always useful! And if any failure occurs in the process of the innumerable mutations necessary to see one species evolve into another, the original species would be deformed and likely unable to survive.

> …[I]t must be admitted that theoretically the transition from an insectivore's forelimb to a bat's wing may occur through 'numerous, successive, slight modifications'. However, this can be done only if we refrain from the demand, inevitably dictated by the theory of natural selection, namely, that each stage in the succession must be useful to the organism. It was an easy match for Darwin's critics to see that this and other examples imply the breakdown of Darwin's theory, since *at the intermediate stages the forelimbs can be used neither for walking nor for flying*. Worse is, of course, that none of the 'facts' which Darwin had collected lend any support whatsoever to his micromutation theory – all he could do was to account for the missing evidence by reference to extinction. But this implies that the available evidence cannot be used to test the theory, which means either that the theory is false or that it is metaphysical. However, we may agree with Darwin that we shall always be cautious in our conclusions, and therefore we may wonder why he was anything but cautious in his conclusions about the validity of his theory on natural selection. (Lovtrup, 1987, pp130-131)

It is certainly a legitimate inquiry as to whether Darwin was toying with his reader or serious in scribing the following:

> A well-developed tail having been formed in an aquatic animal, it might subsequently come to be worked in for all sorts of purposes, – as a fly-flapper, an organ of prehension, or as an aid in turning, as in the case of the dog, though the aid in this latter respect must be slight, for the hare, with hardly any tail, can double still more quickly. (1859/1963, p170)

As Darwin is drawn to reflect upon his dilemma he again seeks ancient wisdom; but lacking necessary insight he characteristically falls into the wrong solutions:

> Why, on the theory of Creation, should there be so much variety and so little real novelty? Why should all the parts and organs of many independent beings, each supposed to have been separately created for its proper place in nature, be so commonly linked together by graduated steps? Why should not Nature take a sudden leap from structure to structure? On the theory of natural selection, we can clearly understand why she should not; for natural selection acts only by taking advantage of slight successive variations; she can never take a great and sudden leap, but must advance by short and sure, though slow steps. (1859/1963, p169)

So near, and yet so far. Darwin could recognize the wondrous and marvelous variety of Creation, but would not be satisfied until he saw novelty. Except for his nefarious bias, Darwin could have recognized the beauty and utility of function in all species of Creation.

Lovtrup (1987), in his thorough analysis of Darwin's theory as applied to modern biology, is quick to answer Darwin's inquiry:

> As to Darwin's three questions, I propose the following answers: Why not? Any observation can be made compatible with a theory of Creation. Why not? Even the Creator may use a good device more than once. Yes, why not, indeed? Darwin's arguments against this possibility are postulates, unfounded by any evidence….
>
> The general assertion that plants and animals are purposeful organisms may be well-substantiated, and yet, when it comes to ascribe purpose to any single attribute, then one is easily led astray towards ridicule. Darwin shows it here, and the same has been demonstrated by many of his successors. As concerns the fly-flapper, with which the giraffe has been outfitted by natural selection, I am rather astounded that it was not made so long as to reach all parts of the body, that surely would aid the giraffe in the search for food in a coming dearth. (pp132-133)

No doubt it is the case that Charles Darwin found an excess of time to devote to the reading of his grandfather's poetry; for Erasmus Darwin was the one who set the stage of evolution for his grandson to later use; and it was the elder Darwin who presaged the notions of natural selection when he penned these rather presumptuous lines (cited in Lovtrup, 1987, p19):

> First forms minute, unseen by spheric glass,
> Move on the mud, or pierce the watery mass;
> These, as successive generations bloom,
> New powers acquire, and larger limbs assume;
> Whence countless groups of vegetation spring,
> And breathing realms of fin, and feet, and wing.

The "ape-men"

(cf. Huse, 1983, p98)

A. Nebraska Man – one tooth found in 1922; claimed by evolutionists to have lived 1 million years ago. Years later the entire skeleton was found to be an extinct species of pig!

B. Southwest Colorado Man – one tooth, later found to be that of a horse.

C. Java Man – labeled *Pithecanthropus erectus* (erect ape-man), 1891, by Dr. Eugene Dubois, a fervent evolutionist. *Unfossilized fragments* 500,000 years old! How is it that unfossilized remains didn't disintegrate during that period of time? Beyond that interesting point,

> [W]e are not told the facts: Dubois also discovered the Wadjak (truly human) skulls at the same level as 'Java Man', but concealed them for 30 years because he wanted his first discovery to be admired as a 'missing link'; and before he died Dubois confessed, or at least gave his opinion, that 'Java Man' was really a gibbon (monkey)! Nor are we told of [a later] expedition in 1907 which found that the area of Dubois' discoveries was volcanic in origin, so that Java Man could not be more than 500 years old. (Watson, 1976/88, p41)

D. Piltdown Man – 1912, evolutionists "tested" the bone and teeth fragments to be 500,000 years old. Later proved to be a hoax allegedly perpetrated on the elitist scientific community by none other than theistic-evolutionist and theologian Teilhard de Chardin.

Lewin (1987) in his research on the Piltdown Man and other hoaxes provides valuable and insightful analysis as to how science, discipline that it purports to be, would be drawn into such folly. He notes that, "it is something of a British anthropological tradition that modern forms of man originated deep in geological

history…. Arthur Keith (the principle proponent of this idea) considered the human brain to be so special that only a very long period of slow evolution could have fashioned it from a more primitive state. His obsession with the idea had previously led him to erroneously accept two modern skeletons, *Gally Hill Man* and *Ipswich Man*, as being of ancient origin. When Piltdown Man came along, once more it seemed to offer evidence in support of his cherished theory. By 1912, Keith was definitely looking for evidence in this regard, and was obviously ready to suspend much critical judgment on almost any fossil which gave more weight to his idea, says Hammond" (p71).

Lewin goes on to note that, "The real interest of Piltdown, however, is not so much where on the family tree – or bush – it was hung, but how those who believed in the fossil saw in it what they wanted to see" (p73).

"For nearly 50 years Piltdown Man stood as one of our ancestors, and about 500 books and pamphlets were written about him" (Gish, 1990, p79).

E. Neanderthal Man – now known to have been fully human, suffering from osteo-arthritis and rickets (when alive he walked hunched over somewhat like an ape). Interesting note: Neanderthal's brain was slightly larger than that of present-day man, raising the issues of superior intelligence as well as prolonged ages for our ancestors (Taylor, 1991, pp209-215; and Eiseley, 1958/1961, pp278-285). And although cranial capacity seems to have nothing to do with intelligence it does raise some interesting speculations (Taylor, 1991, p257).

Those holding to an evolutionary world-view were characteristically excited about the initial discoveries of Neanderthal and the imaginative interpretations of his appearance and behavior.

> Museum exhibits and pictures of the Neanderthal people portrayed them as sort of long-armed, knuckle-dragging, beetle-brained, stooped-shouldered, bow-legged subhumans. Eventually, however, other skeletons of Neanderthal people were found that were fully erect, and it was established, by medical research, that [a complete] skeleton found in France was, indeed, that of an arthritic old man….
>
> Museums have removed the old exhibits of Neanderthal people and have replaced them with new exhibits showing the Neanderthal people looking very human, and about 30 years ago, two scientists published an article about Neanderthal people in which they declared that if Neanderthal Man were given a shave, a haircut, and a bath, put into a business suit, and placed on the New York subway, no one would take a second look! (Gish, 1990, p81)

F. Cro-Magnon Man – The descendent of the Neanderthal stock, there is nothing to distinguish Cro-Magnon from humans today. His people produced tools for use, jewelry for show, and elegant polychrome cave paintings of great vitality.

G. Zinjanthropus – One of Louis and Mary Leakey's hoped-for "missing links" between apes and humans. Now generally regarded as a member of the primitive ape family, classified as Australopithecines, and now extinct.

H. "Lucy" – Classified by Lewin (1984) as "firmly within the human lineage" (p38), in reality Lucy was probably just a primitive arboreal ape and not human at all.

I. Calaveras Skull Hoax – Even the great Josiah Whitney (for whom the tallest peak in the lower 48 is named) fell prey to this hoax in his eagerness to find the "Missing Link". Two drunken miners had planted an Indian skull deep in the base of a mine shaft in the Mother Lode, and Whitney was led to believe that it was the remains of an extinct, pre-historic man. It is said that all California laughed when the hoax was revealed (Goetzmann, 1982, p86; and Taylor, 1991, p217).

The process of fossilization and petrification

For fossilization to occur an organism must be buried deeply and quickly in wet sediment to seal it off from the atmosphere and decomposing bacteria in order to fossilize. This is especially true of fossils which represent higher forms of life. "When an animal dies, unless it happens to perish suddenly, as in a flash flood or volcanic eruption, the flesh quickly decays, the bones disintegrate, the remains disappear. In order to be preserved for future ages there

must be rapid burial and rapid lithification – that is, the sediments must harden into stone quickly before decay agents such as bacteria in the air begin this action" (Morris, 1973c, p21). It is clearly evident that the fossils which are found today are the result of a monumentally cataclysmic event.

Woodmorappe (1981), noting the difficulty that evolutionists have with the fossil record writes:

> Evolutionists can appeal to an incomplete fossil record as a rationalization for absent transitions and then turn around, contradict themselves, and point out that the fossil record is actually very rich….
>
> Darlington wrote: "Many gaps and ambiguities occur in the fossil record and are stressed by critics, but (as Darwin noted) they are expected. Fossilization is and must be rare and fragmentary…. [then 144 pages later Darlington again] … Nevertheless, in spite of being fragmentary and biased, the fossil record gives us a surprisingly good view – almost a magical one – of the course of evolution at least of higher plants and animals. (p203)

Magical indeed! Without its peculiar view of the fossil evidence and its adherence to the spurious notions which allow for bizarre dating and interpretations, there would be found no rational person with nerve enough to subscribe to and promote the myth of evolution as a satisfactory view of origins.

Mutations and the 2nd Law of Thermodynamics

Every system left to its own devices tends to move from order to disorder, contrary to current evolutionary teaching of an upward, more complex progression.

It is held by evolutionists that the physical mechanism of change allowing one species to evolve into another is that of *mutations*. However, extensive research in the field of genetics has shown that mutations are universally harmful to the parent species in almost every case. The Second Law of Thermodynamics assures us that random changes always cripple, or weaken any organism that experiences them.

Another way of stating the Second Law then is: "The universe is constantly getting more disorderly! Viewed that way, we can see the Second Law all about us. We have to work hard to straighten a room but left to itself it becomes a mess again very quickly. Even if we never enter it, it becomes dusty and musty" (Asimov, 1970, cited in Miller and Watrous, 1976, p38).

Ruse (1973), an evolutionist, is none-the-less more than open when he writes:

> …[A]lthough geneticists know of some mutations which cause fairly drastic changes, they have entirely failed to discover the kind of macromutations required by the saltation theory – the kind of mutation which would take a group of organisms from one order to another. Moreover, the large effect mutations which are known are usually just those mutations which are the most crippling to their carrier…. (p111)

Whitcomb (1973a) notes that "…mutations merely produce freaks that are less capable of surviving the struggle for existence than their parents…. [T]his is comparable to the idea of trying to improve the basic structure of a typewriter by standing twenty-five feet away and throwing rocks at it with the hope that one rock out of a million might improve the structure of the machine. The fact is that no random, sudden, drastic change in any system can possibly improve it " (p37).

The idea of *constructive* mutations finds its origins in the work of Jean Baptiste de Lamarck who rendered the second of his four laws of evolution the notion that new wants in animals give rise to new organs. In addition, Lamarck felt that the development of these new organs was in proportion to their employment, and that these new developments could be transmitted to offspring.

Charles Darwin adopted Lamarckian arguments in the later editions of the *Origin of Species*…. In fact, Darwin found it necessary to postulate positive mutations since this is the only mechanism that could justify the notion of evolution.

In pre-paleontological science such a speculative notion was risky; but even fossil evidence today – some 150 years later – shows that there are no transitional animal forms in the fossil record which could account for the countless mutational steps necessary to guide evolution.

Lamarck asserted that giraffes developed long necks because they needed them in order to browse off the high branches of the trees in the jungle. He believed that atrophy had precisely the opposite effect in eliminating vestigial organs which were no longer necessary for productive life. Here he cited the snake, which sprang from reptiles with four feet; snakes having lost their legs while growing longer because of continual effort to elongate themselves in order to push through narrow places!

> In many respects Lamarck was a bad scientist: he gave more attention to *a priori* speculations and fanciful hypotheses than to the direct observation of nature. *Yet Lamarck made a definite contribution to evolutionary theory.* (Trattner, 1938, p217, *italics added*)

But Lamarck's "contributions" were not *a priori*, derived by reasoning from self-evident propositions; but truly speculative – that is thoughtful – though misguided considerations. Based upon the false notions of beneficial mutations, Lamarck saw biological evolution as branching, instead of as a single chain. He was the first to publish a genealogical tree so prevalent in biological textbooks today.

Lamarck was also the first to insist that for any sort of evolution, no matter what the factors, much more time must be allotted to Nature in order to enact her laws, than had previously been assigned. Thus, by speculative fiat, unreal, and unverifiable spans of time were conceived and nurtured.

The human brain and the dilemma of "mind"

To pause here for a moment, and at the same time make this discussion personal, consider the human brain. Here we have a three-pound instrument containing in the order of 1,000 trillion (10 to the 15th power) connections called dendrites. Laid end to end these branching fibers would circle the earth more than four times!

Denton (1985) offers an analogy regarding this number:

> Numbers in the order of 10 (to the 15th power) are of course completely beyond comprehension. Imagine an area about half the size of the USA (one million square miles) covered in a forest of trees containing ten thousand trees per square mile. If each tree contained ten thousand leaves, the total number of leaves in the forest would be 10 (to the 15th power), equivalent to the number of connections in the human brain. (p330)

Now, is it reasonable to suppose that this all happened by chance? Put those dendrites to work and cogitate a bit on that profound thought!

One of the first important controversies in the field of evolutionary thought was related to the fact that most 19th-century paleontologists prided themselves on human intellectual capabilities and capacities. Thus, many of those accepting Darwin's theory believed that the earliest human ancestors would be ape-like in most of their features but would have large brains and more human-like skulls.

Although Darwin and Huxley attempted to bridge the gaps between humans and their primate ancestors, they emphasized the development of the brain.

> No doubt man, in comparison with most of his allies, has undergone an extraordinary amount of modification, chiefly in consequence of the great development of his brain.... (Darwin, 1874/1883, p154)
>
> The ancestors of man were, no doubt, inferior in intellect… but it is quite conceivable that they might have existed, or even flourished, if they had advanced in intellect, whilst gradually losing their brute-like powers, such as that of climbing trees. (Darwin, 1874/1883, pp61-62)

It was such thinking, as Sussman (1993) notes, that contributed to the general acceptance of the Piltdown Man who was thought to be the most likely candidate for our earliest ancestor (p9). Imagine how the soil stewed on Darwin's grave when Piltdown was shown to be a hoax!

Nonconformity in the geological column

In the field of geology the law of superposition states that younger sedimentary rocks are deposited over older rocks. However, this "law" is based on Lyell's uniformitarian assumption which presupposes relatively calm action on the earth's surface in laying-down ever subsequent layers over aeons of time. On the other hand, if a cataclysmic event occurred in the earth's history, then any findings based upon a notion of uniformity would be at best irrelevant, and at worst, in error. The existence of a "Universal Ocean" – an idea consistent with the Biblical account of the flood – provides an alternative view of the history of the earth's crust.

One need not argue against stratigraphy when upholding the Universal Cataclysmic Flood, since there are obviously strata; and the geological layers were "laid down" in some fashion. Furthermore, an understanding of the sedimentary layers is quite beneficial, especially in the petroleum industry as a prerequisite for locating oil and gas concentrations. The debate occurs over the history of geology – how the layers got to where they are in the first place.

All of the catalogued strata layers of the geological column can rarely, if ever, be found occurring together and they are not always found in the right order. Even at the Grand Canyon the Ordovician and Silurian Periods are missing, as is 50% of the remaining column.

A tremendous amount of cross-bedding and upheaval are noted in the Four Corners Region, especially around Kanab, Utah, and Zion National Park, indicating rapid and tremendous forces must have been present in this region. And when you consider that most of the earth's surface (including the tops of many mountains) is covered with sediments or sedimentary rocks which were originally deposited under moving water then it is clear that the entire surface of the earth was once submerged by great and powerful waters.

Woodmorappe (1980) notes that "It is obvious that the earth's land surface is hard-pressed to produce even 3 of the 10 geologic periods in 'correct' consecutive order." In his exhaustive study he records the following quantitative data:

> …[I]t is evident that nearly 13% of the earth's land surface has 5 geologic periods represented (irrespective of their order or identity) while slightly less than 1% has all 10 periods simultaneously in place; 42% of earth's land surface has 3 or less geologic periods present at all; 66% has 5 or less of the 10 present; and only 14% has 8 or more geologic periods represented at all.
>
> …The overall failure of geologic periods to be numerically abundant in most places on earth and their even greater failure to occur in consecutive sequences is significant enough, but… where geologic period's rocks *do* exist they often fail to rest "properly." A significant percentage of every geologic period's rocks does not overlie rocks of the next older geologic period…
>
> The more the earth's surface fails to display the vaunted evolutionary- uniformitarian geologic column in terms of actual presence and "correct" stratigraphic layering of geologic period rocks, the more the geologic column passes into the realm of fantasy. (pp67,68)

Taylor (1991) has noted the tremendous inconsistencies apparent in the uniformitarian explanations of geological configurations:

> Lyell and modern geology acknowledge that the rock layers were first formed as flat sediments, which were soft and plastic in their early stages. With time and, it is said, pressure, these sediments crystallize (metamorphose) and become hard solid rock. Lyell required long times, but it is just those long times that worked against his theory by causing the sediment to harden *before*, or certainly during, bending. He made the *a priori* assumption that the natural laws operating today have not changed, but then because of the obvious problem of bending solid rock, he had to make an appeal to time as a factor that somehow changes the laws by which rocks crack when their tensile strength is exceeded; this is a contradiction of his own principle of uniformitarianism. All this difficulty would have been avoided if Lyell's mind-set could have accepted the most obvious explanation, that the rocks were bent in the early stages when the sediments were pliable and before metamorphosis took place. This would easily satisfy all the facts but would require the process to have taken place over a short period of time, say a few months; but, of course, it would be difficult to escape the conclusion that a major catastrophe was involved. (p105)

Woodmorappe (1980) concludes that,

> Since only a small percentage of the earth's surface obeys even a significant portion of the geologic column, it becomes an overall exercise of gargantuan special pleading and imagination for the evolutionary-uniformitarian paradigm to maintain that there ever *were* geologic periods. The claim of their having taken place to form a continuum of rock/life/time of ten biochronologic "onion skins" over the earth is therefore a fantastic and imaginative contrivance. (p69)

Serious problems with the methods used in geologic dating

The current methods of indirect dating such as radioactive decay of uranium into lead, or of radio-carbon into Nitrogen 14, or of potassium into argon are based on the premise of Uniformitarianism as well as several spurious assumptions.

Basic to the validity of mineral dating is the assumption that the dated material must be a closed system; nothing inside the system must have escaped and nothing outside must have crept in. In other words, it must have remained a closed system. In the natural world there is no such thing as a truly closed system. This assumption cannot be supported fundamentally.

The second basic assumption underlying the validity of element dating is that the rate of change (i.e., uranium decaying into lead) within the system must always have been the same. But nature offers no experience with, or example of, a constant process rate. The second assumption is unsupported as well (Morris, 1973d, p83).

Carbon 14 dating which is highly touted in the scientific community to supply near-absolute dates for events within the past 30 or 40 thousand years is based on seven germane assumptions: (1) The carbon 14 concentration in the carbon dioxide cycle is constant; (2) the cosmic ray flux has been essentially constant – at least on a scale of centuries; (3) the rate of decay of the carbon 14 atoms must have been constant; (4) dead organic matter must not later be altered with respect to its carbon content by any biologic or other activity; (5) the carbon dioxide content of the ocean and atmosphere must have been constant through time; (6) the huge reservoir of oceanic carbon could not have changed in size during the period of applicability of the method; (7) the rate of formation and the rate of decay of radiocarbon atoms has been in equilibrium throughout the period of applicability (Whitcomb and Morris, 1961/1990, pp371-372).

Is it reasonable to expect that each of these assumptions have been controlled for over time, in order to meet the rigors of science (cf., Taylor, 1991, ch.11 & 12, esp. pp303-305, and 317)?

Taylor (1991) concludes his discussion on radiometric dating by citing the frustration expressed by the radio-carbon fraternity:

> The radiocarbon method is still not capable of yielding accurate and reliable results. There are gross discrepancies, the chronology is *uneven* and *relative*, and the accepted dates are actually *selected* dates. "The whole blessed thing is nothing but 13th¯century alchemy, and it all depends upon which funny paper you read."

Taylor notes that "this statement, by a worker in the field, sums up the truth of the matter – a far cry from the textbook claims of the 'consistency of radiocarbon dates'" (321).

The *Science Framework for California Public Schools* (1990) provides an interesting glimpse into the dilemma one finds himself in when trying to determine the validity of artificial methods of dating:

> The age of rocks and formations can be compared by *relative means* (the comparison of rock sequences and fossil assemblages, called stratigraphy) or by *absolute means* (radioactive decay, which can be calculated independently of the strata in which the elements are found and which depend only on chemistry and physics). Isotopes of different elements are useful for calculating different ranges of time. *Carbon dating is useful only to about 50,000 to 70,000 years in the past, even with enhanced techniques.* By contrast, rubidium-strontrium dating is useful up to almost 50 billion years in the past, *although at a scale so vast that it can be calculated only to the nearest several billion years.* (p96, *italics* added)

The *Framework* authors cite carbon, potassium-argon, or uranium-lead isotope dating methods as having greater validity, however are careful never to discuss the assumptions upon which any of these methods are based. And the rubidium-strontrium method could not be useful in any regard, even beyond the consideration of assumptions, because of the indicated standard deviations of several billions of years. Since the universe is regarded by evolutionary theory to be *only* 25 billion years old, could the "several billions of years" of deviation actually be somewhere in the neighborhood of 25 billion years? And if so, doesn't that leave us then with the logical extremes of 50 billion, or 0 years?

Beyond these stated problems with "scientific" dating methods is the interesting scholarly findings of Australian Barry Setterfield, who, in examining the published determinations of the speed of light over the past three-hundred years, discovered that the speed of light has not been constant; it was faster in the past! Setterfield noted that there have been a number of scientists in the past who saw the trend and concluded that light must be slowing down.

Because of their commitment to the uniformitarian principle, the evolutionary scientific establishment assumes the constancy of the speed of light in formulating scales of radioactive decay. Physicists know that the rate of decay for radioactive elements is directly related to the speed of light, and for scientific purposes must be considered constant.

If, in fact, the speed of light has not remained constant – and it most likely has not – then the faster the speed of light, the more rapid the decay of radioactive elements. And this means that all dating calculations published in the past must be refigured and corrected to account for the ever-decreasing value for light speed.

The decrease in light speed discovered in Setterfield's research is substantial. The decay curves which he has been able to overlay on historical time-sequencing indicates that at some point just beyond 4,000 B.C., the curve approaches infinite light speed and thus the ultimate origin of the universe (Ackerman, 1986, pp71-77).

Seismic activity

We live in a relatively docile world in comparison to the ancient earth of recorded history. We're used to hearing about earthquakes, volcanic eruptions and occasionally are exposed to their effects; but few of us have ever been in the center of their destructive forces.

When one considers the seismicity of the earth the findings are enough to stagger the imagination. As a point of comparison, consider that the explosive force of the Atomic Bomb dropped on Hiroshima, Japan in 1945 was equivalent to 15 kilotons, or 15,000 tons of TNT. The explosive force of one hydrogen bomb equals 1,000,000 tons of TNT.

Think for a moment of the destruction caused by the eruption of Mt. St. Helens in 1980. That explosion was a mere firecracker when compared to the 1883 eruption of the Indonesian volcano, Krakatoa, which had an eruptive force of 200,000 H-bombs! But in turn, Krakatoa was overshadowed by the eruption of Mt. Mazama some 5,000 years ago, forming the awesome Crater Lake in present-day Oregon. The explosion, equivalent to 1,500,000 hydrogen bombs, was so violent that it would take 42 eruptions the magnitude of Mt. St. Helens eruption to equal it. "With little support, Mt. Mazama could no longer stand. In a a thunderous roar, perhaps lasting only hours, the top 5,000 feet of the mountain collapsed" (display in Visitors Center, Crater Lake National Park, Oregon)!

Circular reasoning

Circular reasoning is the means whereby evolutionists come up with their "Time-table of Science". In order for the *geologist* to date his rocks he asks the *paleontologist* who dates them by the fossils that have been located in similar strata. But when the paleontologist must date a fossil he asks the geologist, who in turn dates the fossil by the strata it was found in. Such reasoning is foreign to both science and simple common sense (cf. Macbeth, 1971, pp62-65).

> Once upon a time a huge fish was swimming around when along came a smaller fish. The big fish was so hungry it swallowed the other fish whole. The big fish died and sank to the bottom of the lake.
>
> This happened ninety million years ago. How do we know? We know because the fish turned to stone. The fish became a fossil. A plant or an animal that has turned to stone is called a fossil.

> Scientists can tell how old stones are. They could tell how old the fish fossil is. So we know how long ago the fish lived. (Brandenberg, 1972, pp1-3)

Beyond the fact that geological (stone) dating is based on highly spurious assumptions, the whole process of circular reasoning is considered an error in reasoned logic. People often commit such errors when they are attempting to persuade others to adopt some opinion which they hold dear.

Also, when times change and people's cherished doctrines are threatened – especially where matters of faith are concerned – the threatened group will instinctively use its own doctrine to argue in that doctrine's defense, with a resulting circularity. The circular argument cannot be made logically or even probabilistically compelling for those who refuse to step into the circle. It is imperative that the "circle" (doctrine) be protected at all costs (cf. Rushdoony, 1967, p89).

Circular reasoning (a tautology) provides the foundation for evolutionary biology. Pesely (1982) identifies this tautological reasoning in the principle of natural selection:

> One of the most frequent objections against the theory of natural selection is that it is a sophisticated tautology. Most evolutionary biologists seem unconcerned about the charge and only make a token effort to explain the tautology away. The remainder… will simply concede the fact. For them, natural selection is a tautology which states a heretofore unrecognized relation: The fittest – defined as those who will leave the most offspring – will leave the most offspring.
>
> What is most unsettling is that some evolutionary biologists have no qualms about proposing tautologies as explanations. One would immediately reject any lexicographer who tried to define a word by the same word, or a thinker who merely restated his proposition, or any other instance of gross redundancy; yet no one seems scandalized that men of science should be satisfied with a major principle which is no more than a tautology. (cited in Sunderland, 1988, p36)

Woodmorappe (1981) provides a classic example of evolutionary circular reasoning:

> It is known that something had to evolve because evolution does take place, and evolution is known to take place because something had to evolve.
>
> It has not been demonstrated (much less proved) that any living system *could* evolve, let alone that *some* sort of living system *had* to evolve. To say that complex living things are here because *some* complex living system *had* to appear is folly and presumption. (p204)

Age of trees

The oldest living things on the face of the earth are the bristle cone pine trees found in the White Mountains of California and Nevada. 4,900 years is reportedly the longest any tree has survived; and yet these tough and hardy trees could conceivably go on living forever! Why is it they are no older than 4,000 to 5,000 years? Could it be possible that some great global cataclysmic event occurred around that time? Morris and Whitcomb (1961/1990) note that , "There is no record of a tree, or any other living being older than any reasonable date for the Deluge" (p393).

Living fossils thought extinct

In the early morning shadows of the Kennedy Space Center in eastern Florida, several colonies of living fossils – *Limulus polyphemus*, the horseshoe crab – are found to reside. These handsome marine animals give every indication of thriving with one leg on the shores of the distant past, while looking in the direction of the space-minded future. These anthropoids are known, according to evolutionary time-scales, to be at least 300 million years old as evidenced by their fossil remains located in the geological column.

Obviously something is wrong here – 300 million year-old fossils and current living specimens which appear, for all practical purposes, to be exactly alike. What happened to 300,000,000 years of progressive evolution? And the horseshoe is but one of many such animals, each of which live today but whose ancestors are found in strata capriciously dated in the hundreds of millions of years.

Dr. Joachim Scheven of the Lebendige Vorwelt museum in Hagen, Germany, oversees the world's largest collection of living fossils. The purpose of his work is to inform the public – which is largely unaware of living fossils – that there are literally hundreds of different types of animals and plants which are alive and well; and which are essentially unchanged from the way they appear as fossils. Dr. Joachim provides a report entitled "Living Fossils" in each quarterly issue of *Creation Ex Nihilo*. Based on his work Scheven feels that, "[t]he overwhelming message of the fossil record is one of staying the same, not evolving"(Vol.15 No.4, p23).

Macbeth (1971) notes that:

> There are in nature certain forms that have existed unchanged through enormous stretches of time; e.g., the platypus, the little brachiopod *Lingula*, the oyster, the opossum, the ginkgo tree, the Australian lungfish, and the recently discovered fish called *Latimeria.* These are known as "living fossils" or "persistent types." They puzzle and annoy the evolutionists, who feel obligated to explain why, in a world of change, these forms continue in their old placid way without either changing or becoming extinct. In hundreds of millions of years there must have been changes in climate, changes in the environment, new enemies, new parasites, new diseases. Yet these creatures, without showing any special virtues or abilities, continue unchanged. (p121)

Hybodus, the world's only complete fossil of an early shark was found in West Dorset Cliffs, England, so well preserved that it features fossilized skin and cartilage, which is extremely rare. Remains of the shark's last meal – fragments of squid – have also been identified, indicating that the shark was buried rapidly in a catastrophic event before it had time to digest or disgorge its food.

Some scientists have claimed that *Hybodus* is the evolutionary ancestor of all modern sharks. But seeing such an "early" shark that is clearly identified as a shark gives no comfort to those who believe that sharks evolved from something else (*Creation Ex Nihilo*, Vol. 15 No.4, p7).

The fossil skeletons of bats found in shale supposedly 54 million years old on the evolutionary time-scale are essentially the same as that of today's bats. Pitman (1984) shares this about bats:

> [The bat's] sonar is a marvellous discriminator: in a bat-swarm, in cave or night air, a bat can know its own sound among thousands of mobile neighbors, detecting its own signals even if they are 2000 times fainter than background noises. It can "see" prey, such as a fruit-fly, up to 100 feet away by echo location and catch four or five in a second. And this whole auditory system weighs a fraction of a gram! Ounce for ounce, watt for watt, it is millions of times more efficient and more sensitive than the radars and sonars contrived by man.
>
> The bat "sees" with sound better than light. The idea that such an echo-location system (which would have to work straightaway or else accidents would eliminate the creatures) "evolved" gradually by random mutation through unspecified "ancestors" is inadequate. Indeed, that numerous changes must have had to occur simultaneously if the creatures were to operate effectively must prejudice the rational man towards creation theory. (pp219-220)

The okapi is another supposedly extinct animal that has proved to be among the living. A curious-looking cross between a giraffe and an antelope, the okapi had been thought to be extinct since the Miocene Epoch 20 to 40 million years ago, until one was captured in 1906.

Other finds include a Pleistocene peccary that surfaced in Paraguay in 1975, and the famous coelacanth, a "fossil" fish supposedly extinct for 65 million years, that still swims off the coast of Africa.

And then there is the "extinct" plesiosaurus which Japanese fishermen accidently caught in their nets as reported in the New York Daily News of July 21, 1977. "The 30-foot, 2-ton carcass was reported as having two fins front and rear, a 5-foot neck, and a 6-foot tail. Instead of being extinct for many millions of years, here it was swimming off the coast of New Zealand in the South Pacific (cited in Baugh and Wilson, 1987/1991, p136).

Obviously these living fossils present great difficulties for those who would hold to their belief in evolution. The evidence continues to accumulate. There are conspicuous problems with the notion of mutations with their link (transitional) fossils, not to mention the whole scheme of geological dating scales.

Dinosaurs and man together?!

Current evolutionary doctrine holds that dinosaurs became extinct around 65 million years ago, and that man evolved about 3 million years ago. These numbers, at best, are based on uniformitarian assumptions; and at worst are entirely conjectural. Never-the-less, one looks long and hard to find any suggestions that would challenge these numbers. And to suggest that dinosaurs and humans could have existed contemporaneously is to court ridicule and scorn from the very academic and scientific circles which purport to hold objectivity as the hallmark of their trades.

Interest in fossils has been a relatively recent phenomenon. Until 1822 few saw any importance in fossilized remains; and to the extent that interest was shown, fossils were assumed to be another evidence for the cataclysmic event known as Noah's Flood. In that year Dr. Gideon Mantrell and his wife found parts of an Iguanodon in England.

As James Hutton and Charles Lyell were busy trying to add eons to earth's history, and, in the process developing geological models that conformed to their wishes, fossils and the notion of extinction became handy tools in their arsenal. Since many of these fossils represented creatures beyond current human experience, it remained for Lyell to convince a gullible public that they in fact represented ancient specimens of a pre-humanoid existence.

Charles Darwin was greatly enamored by Lyell's logic and he saw in fossils an opportunity to establish a chain-of-being which allowed not only for adaptations and variations within species but, if enough time could be convincingly argued, for trans-speciation as well. Eons of time, fossil lineages, and species extinction became the foundation stones for the structure Darwin hoped to build in putting to rest, once and for all, the Biblical accounts of special creation.

In 1910 a discovery was made in the Paluxy riverbed in Texas which was destined to cause ripples and some serious soul-searching among evolutionists for the duration of the twentieth-century and beyond. A local resident of Glen Rose, Texas, discovered dinosaur and human tracks in the riverbed at a geological level inconsistent with evolutionary dogma.

Earlier discoveries of dinosaur prints in the area had been reported by geologist/paleontologist Roland Bird of Harvard University and the American Museum of Natural History; and continual sightings of dinosaur prints and human tracks were reported in the years following. What was significant about these findings – but seldom inferred – was the fact that these tracks and prints were made in the same geological strata, suggesting a contemporaneous existence for their makers.

If dinosaur tracks and human footprints were indeed found together, then the whole uniformitarian/geological scheme of dating would be in serious jeopardy. As Milne and Schafersman so insightfully wrote in the *Journal of Geological Education* (1983, p111):

> Such an occurrence would seriously disrupt conventional interpretations of the biological and geological history and would support the doctrines of creationism and catastrophism. (cited in Baugh and Wilson, 1987/1991, pi)

This statement illustrates the seriousness of the concern to evolutionists and, in a real sense, establishes one of the battle lines drawn by those who see their sacred doctrine threatened. But the student of natural history need only look at the evidence at the Paluxy and decide for himself the meaning of the many prints found there.

For the past decade, anthropologist Carl Baugh and archaeologist Clifford Wilson have undertaken extensive excavations at the Paluxy River and literally uncovered large areas of prints, found in stride, of both dinosaurs and humans; as well as two dinosaur skeletons, an intact hair, and a human tooth, and finger. All of these items, as well as the stride of the prints, indicate a state of panic and catastrophic destruction. And the evidence indicates more.

In the first place, the dinosaur trails "…lie in strata much to 'young' to fit in their demanded place in the evolutionary column…. [I]n fact, the Paluxy River evidence destroyed twenty percent of the supposed geological evolutionary record because it bypasses 110 million years of hypothesized time in the evolutionary scale, the so-called "geological column" (Baugh/Wilson, 1987/1991, pp7,12).

Secondly, even though the uncovered dinosaur tracks conform to the established immense size of these ancient lizards, in both dimension and stride, the human prints uncover an aspect of human history which has all but been forgotten; and if mentioned, usually denigrated – the ages and sizes of antediluvian beings. The Biblical Old Testament gives frequent and consistent reference to the ages of the patriarches, with Adam and his descendents to

Noah generally living in excess of 900 years. The author of Genesis used these ages as the chronologies for earth's early inhabitants, providing not the year of birth of the offspring, but instead the age of the father at the time of the child's birth. In other words, Genesis gives not just a clear creation account, but also a carefully documented chronology of human ages from the time of creation to the Noahic Deluge.

This method of chronological dating was also used consistently as the means to calculate history in the years following the Deluge, indicating that the author of Genesis had insight into the difficulties historians would have in the following millennia as they attempted to chart the course of human and natural history. With the use of various calendars by diverse cultures over centuries of time, it would be impossible to use the genealogies for chronological order if date-markers were used. The method employed in Genesis uniquely accommodates historical investigation in any setting.

There also exists a clear indication of the size attained by antediluvian beings in the years prior to Noah's Flood. The Genesis account records that in the days of Noah, giants inhabited the earth (6:4). A skeleton of an eleven-foot human has been found in Italy; and indeed, the skeleton of a seven-foot woman has been located in the Paluxy excavation area (Baugh/Wilson, 1987/1991, pp17, 58, and ill. B).

These size and age references provide an indication of the environmental differences between the pre-flood and post-flood world. Baugh and Wilson (1987/1991) suggest that,

> … [T]he "Canopy theory" should be taken seriously. The worldwide Flood thus resulted from the break-up of an invisible moisture vapor [the firmament above, Genesis 1:6; 2:5-6; 7:10-12] around the earth, as well as the breakup of pressure systems from within the earth itself – leading to what the Bible describes as the fountains of the deep being broken up (Genesis 7:11). Dr. Henry Morris recreates a possible sequence of events:
>
> > Once the postulated pressure rise caused the first fountain to crack open, the pressurized fluid would surge through at this point and further weaken nearby boundaries, until soon a world-wide chain reaction would develop, cleaving open all the fountains of the great deep throughout the world.
> >
> > The volcanic explosions and eruptions which would have accompanied these fractures would have poured great quantities of magma up from the earth's mantle along with the waters.
> >
> > Furthermore, immense quantities of volcanic dust would have been blown skyward, along with gigantic sprays of water and turbulent surges of the atmosphere. The combination of atmospheric turbulence, expanding and cooling gasses, and a vast supply of dust and other particles to serve as nuclei of condensation would suffice to penetrate the upper canopy of water vapor and trigger another chain reaction there, causing its waters to begin to condense and coalesce and soon to start moving earthward as a torrential global downpour of rain." (pp112-113; from Morris, H.H., 1976, *The Genesis Record*, Creation Life Publishers, pp196-197)

This canopy of moisture which surrounded the earth as the atmospheric shield to protect the planet's antediluvian inhabitants from the deadly rays of the sun has been recognized long before the crisis over the ozone layer became the hot topic of current discussion. Dr. Edward Blick of the University of Oklahoma's School of Aerospace, Mechanical and Nuclear Engineering, notes that,

> Another effect of the "Greenhouse Theory" could have been a reduction in the amount of short-wave radiation reaching the earth's surface from the sun. This would be caused by the large amount of water vapor and ozone in the atmosphere. Ozone is concentrated in the upper atmosphere zone, and in the pre-Flood era it was probably in much greater concentration then in our present atmosphere. This would be due to the reduced vertical turbulence in the uniform atmosphere surrounding the earth, which would reduce the turbulent mixing and cause large concentrations at the upper levels. Therefore, water vapor would not only shield the earth from solar radiation, but would also partially shield the outer ozone layer from the earth's long-wave radiation. The earth's long-wave radiation

> causes the ozone (03) to recombine back to its normal diatomic state of oxygen (02). Thus the water vapor and ozone would form an effective shield against the sun's short-wave radiation. (cited in Baugh and Wilson, 1987/1991, pp119-120)

In reference to the direct impact this ozone shield would have upon the ages and size of earth's inhabitants, Blick points out that,

> One of the most intriguing theories of aging of humans states that short wave length radiation leads to premature aging and reduces the life span. X-rays, cosmic radiation and the sun's ultraviolet rays are known to have somatic (non-hereditary) effects as well as genetic effects (gene mutations) which injure not only the individual but also his descendents as well. Most investigators agree there is no threshold below which ionizing radiation has no effect on living matter.
>
> The pre-flood atmosphere would have far less background radiation than does the present one. Therefore, there must have been fewer somatic and hereditary mutations. Hence, everything, including the climate, favored the continued production of larger, stronger, long-lived specimens of every type of creature. This, of course, is what we have seen in the fossil record.
>
> According to the Bible, many men lived to be more than 900 years old before the flood. However, with the vapor canopy precipitated at the time of the flood, the mutations rate speeded up, the size and strength of the average creature deteriorated, many species became extinct, and the length of the life-span began a steady decline. (cited in Baugh and Wilson, 1987/1991, pp107-108)

Combine this information with the little-known fact that reptiles continue their growth pattern throughout their lifetime and it becomes clear how those pre-flood lizards we've come to affectionately call "dinosaurs" (terrifying lizards) grew to such immense sizes. Dillow points out that:

> Mammals have secondary centers of ossification in the growing ends of the bones. When these centers have replaced most of the surrounding cartilage, they fuse with the bone shaft so that no further increase can take place. Most reptiles do not possess these secondary centers, so their bones are free to grow throughout life. So great size is sometimes an indication of old age in these animals. (cited in Baugh and Wilson, 1987/1991, p119; original source: Angus de A. Bellairs, *Reptiles: Life History, Evolution, and Structure*, p19) Dillow, 1981, p.42

Old age – large size! Humans who attain ages near a millennium! Lizards of giant proportions whose fossilized remains appear throughout the world! Tracks of these large creatures alongside footprints of unusually large and robust humans!

Could all these pieces of information be suggesting clues to a puzzle? Baugh and Wilson (1987/1991), based in part on their findings, assert that,

> The original creation was lush and idyllic. Men lived for vast periods of time. There were giants in the earth. The trees were huge and so were the dinosaurs. A massive catastrophe changed it all. Giants gave way to men of "ordinary" size; dinosaurs no longer had the vast quantities of food nor the oxygen supply required for their sustenance; people and animals lived for much shorter periods of time then before the Flood. (p95)

The Paluxy River finds are controversial because of the implication they hold for the fields of geology, paleontology, human and natural history. The Institute for Creation Research has urged caution in interpreting results as the work in the Paluxy area continues; and some earnest creationists have urged Baugh to desist in his efforts (p151).

But, in the final analysis, it could well be the words of Dr. Hilton Hinderlifer of Penn State University that hold the day. In a letter sent to Baugh he wrote:

> I would have to say that the belief in evolution is in a state of terminal illness but its death will only be admitted by a new generation of scientists whose minds have not been prejudiced by the type of

> education now prevalent in the nation's public schools, an education which starts with the belief that evolution has happened, which interprets all evidence according to that faith, and which simply discards any evidence which cannot be fitted into the evolutionary framework. (p48)

Indeed, the discoveries which are being made at the Paluxy River in Texas, as well as most of the research in other areas of scientific endeavor, are calling for another look at the assumptions upon which current knowledge of history are based. What an exciting time it is for that "new generation of scientists" as they accept the challenges to be open-minded in interpreting the discoveries yet to be made.

CONCLUSION TO PART 1

Evolution and origins

It is not the role of science to answer historical questions – Where did the universe and world originate; How did this happen; Why is it so? It is the task of science to answer material questions – What is the universe and our world made of; and, How do they function?

We are again undergoing a revolution in thinking on the matter of origins. Increasingly the notion of evolution is losing its intellectual appeal. Fundamental to an understanding of Man's quest for origins is that evolution, progressive mutations, and the transmigration of species, was never a theory in the scientific sense. Anyone who has carefully read biographies of Charles Darwin will know that his speculative notions were born out of a bad case of personal frustration, together with his loss of faith in the God of creation, and his apparent theophobia.

Science walks on two feet – theory and experiment. Speculation, on the other hand, is appropriate for the various intellectual disciplines of metaphysics where ideas are generated, formulated, nurtured, and then logically expounded.

But speculation can deceive, and is often self-deceptive. We should not soon forget that in the several thousand years of Man's existence on earth he has been the victim of a thousand illusions, fallacies, faulty assumptions, half-grasped notions and grotesque speculations. Today, as in the past, such errors occur.

If a scientific theory is viewed as a framework upon which scientists gather facts while they are forming conclusions, then evolution can loosely be termed a theory – framework, yes; fact, no; conclusions, abundant! Most certainly evolution and natural selection are not laws as many would have us believe.

Darwinism, upon which so much of current esoteric science is based, is not a theory, and not a law, but a doctrine. A doctrine is simply a principle which is accepted as valid and authoritative. And *acceptance* is the key to understanding the doctrine of evolution today.

For, to the extent that Darwin's notions have been used as a framework to construct the doctrine of evolution today; and to the extent that these notions have been accepted and promoted by the scientific community and the media, to that extent it appears as dogma – a canon if you will – a tenet of the faith for a culture which is now on the verge of collapse.

A return to our roots

Is it realistically possible for a person to believe in a time-frame which holds that the world on which we live, indeed all of life, is less than 10,000 years old? The answer is a certain "yes", if one operates on the following premises:

- That the universe, earth, life were created by design, with purpose and intelligence.
- That the Creation was, in the beginning, perfect in every way.
- That at some later date, the Creation became corrupted and evil in nature.
- That the Creator, in the process of governance, judged the evil of the world and pronounced a sentence of global destruction.
- That, along with the sentence of destruction, the Creator offered an ark of safety for those who trusted in Him for mercy.
- That the destruction of the earth was *a* cataclysmic (Greek = kataclysmos) event which destroyed the entire surface of the earth, and all air-breathing life except for those within the protection of the Ark.
- That all existence following the destruction was radically different from prior conditions.

- That there are shelves of historical accounts, and volumes of archeological and paleontological evidences to support the notion of a young earth, when interpreted within this context.

With these premises in mind consider several of the indications that the earth is indeed a very young planet.

A study of the earth and its environment reveals that the magnetic field is decaying exponentially at a rate corresponding to a half-life of 1,400 years. At that rate the earth could not be older than 10,000 years, otherwise we would be living on a magnetic star. In addition, the rotation of the earth is gradually slowing. At the current and uniform (remember uniformitarianism?) rate of decline, if the earth were 5 billion years old the rotation would be zero – not a pleasant thought to be sure (cf. Taylor, 1991, pp331-334; and Huse, 1983, pp20-25).

When one operates on the eight premises of a recent creation, historical records hold great importance. These records and solar timing structures at Stonehenge, England, and the Egyptian Solar Temple of Amen-Ra reveal that the earth's axis and orbit changed dramatically around 2345 B.C. (Ackerman, 1986, pp91-94).

The young earth scenario is born out when one considers that approximately 300 million cubic yards of sediment are deposited into the Gulf of Mexico by the Mississippi River each year. By carefully studying the volume and rate of accumulation of the river delta and then dividing the weight of the delta, it can be determined that the age of the delta is about 4,000 years (Huse, 1983, pp23-24).

Since helium is one of the products of uranium decay, and as such is continually being produced, we know the approximate rate at which it is entering the atmosphere. If this production rate were occurring for 5 billion years, the atmosphere would contain 200 times as much helium as it now holds making life on earth impossible (cf. Whitcomb and Morris, 1961/1990, pp384-385).

Polonium 218 has been considered a daughter element of the natural decay of uranium, but through the works of Dr. Robert Gentry, the world's leading authority on radiohalos, polonium halos have been found in mica and fluorite without any evidence of *parents*. In other words, it was primordial – present in the original granite from the very beginning. Gentry notes that according to evolutionary timelines polonium halos should not exist at all because of their extremely short half-lives – 3 minutes. If the evolutionist's interpretation was correct and the rock formations gradually cooled over millions of years, the polonium would have decayed into other elements long ago. In fact, this evidence clearly points to an instantaneous crystallization of the host basement rocks of the earth concurrent with the formation of the polonium (cf. Gentry, 1986/1992, pp11-37).

As it concerns the age of the universe, Ackerman (1986) notes that our sun, acting like a giant vacuum cleaner, sweeps up about 100,000 tons of micrometeoroids each day. The sun's radiation pressure also serves to push small inter-planetary dust particles into space. This phenomenon is known as the *Poynting-Robertson effect*. If the solar system is truly billions of years old, these particles should no longer be present. Proceeding at its present rate, the sun could have "cleaned house" in less than 10,000 years as there is no known source of appreciable replenishment. However, micrometeoroids are copious throughout the solar system, and this fact speaks convincingly for a relatively young solar system (pp31-37).

The energy given off by our sun has been computed to equal that of a billion hydrogen bombs being detonated every second. Some stars are so large and bright that they radiate energy anywhere from 100,000 to 1 million times as fast as our own sun! These stars could not have contained enough hydrogen to run the atomic fusion energy production process at such rates for millions or billions of years because their initial mass would have been absolutely implausible. Therefore, these stars must not be billions or even millions of years old, but rather only thousands of years old (cf. Taylor, 1991, pp322-324).

Even star clusters serve to indicate a young age for the universe. A star cluster contains hundreds or thousands of stars moving, as one author has put it, "like a swarm of bees." They are held together by gravity, but in some star clusters, the stars are moving so fast that they could not have held together for millions or billions of years. Thus, the presence of star clusters in the universe indicates that the age of the universe is numbered in the thousands of years (Huse, 1983, pp29-30).

These are simply a few of the many indicators of a young earth/universe creationist model. The serious student of this topic will easily find a wealth of current and historical documentation which builds on this theme.

PART TWO

NATUREPHILOSOPHIE AND SCIENCE

ON TIME

MATHEMATICS AND OBJECTIVE REALITY

QUANTUM PHYSICS AND THE *ETHER* OF OLD

NATUREPHILOSOPHIE AND SCIENCE

To most people science means little more than an increased command over the forces of nature. They pick up the newspaper and read about a cleaver new invention that will soon hit the market. Or they see flashed before them some new marvel of the technological age and conclude that all science is represented by sensational triumphs.

Since America has been in the forefront of the Technological Age, science in this country has never had a respite – a resting place – where the contemplations necessary to understand what science was doing and where it has been taking us could be realized. Consequently, science for science sake – and an end unto itself – has become an accepted standard for our population.

Such has not been the case historically and most notably in German and English science. Indeed, the recognition of philosophy's importance as an impetus to man's discovery of the workings of nature (commonly called science) was so appreciably recognized on both the European continent and the British Isle that Robert Dalton, the founder of modern chemistry and atomic theory, had no difficulty in titling his major work *A New System of Chemical Philosophy*; and then finding it accepted as a scientific text by his intellectual peers.

In America we have a difficult struggle with this notion of science and philosophy co-mingling, and as a result we have set a difficult standard which is frequently violated, often in quite bizarre ways.

Many in American science maintain a strict mechanistic veneer, holding that any interpretations of findings which do not hold to a pure classical methodology is not science but "religious"; while, at the same time, dabbling in a myriad of esoteric arts trying desperately to place some form of religio-scientific meaning to things. There exists among the scientific circles an enlightenment attitude which places a strict methodological rule on others while at the same time promoting pseudo-scientific and metaphysical worldviews for themselves.

The tradition of American science has tried to maintain a strict dichotomy between fields of science and those of the philosophical realm. In a sense this approach is legitimate and could, to an extent, be accomplished in the academic setting. As the young student progresses through his course of study it is good to emphasize and encourage the basic elements of the different academic disciplines allowing the mind to approach learning in an interdisciplinary manner as the student feels inclined. When the student enters university studies, however, the disciplines must be integrated in a practical sense so that the product at that level is a well-rounded education.

The doctrine of evolution presents a difficult challenge to this concept of education. As a philosophy, evolution has actually become the framework for what is presented as science today. It is not uncommon for members of the scientific community to refer to Darwin's notions as the fundamental principle undergirding all of science, and the literature of science is replete with the evolutionary model of science to the exclusion of all other philosophical and theological considerations. This view of evolution and science has been maintained for so long in American science that most scientists and the public at-large actually view evolution and science synonymously.

As a point of fact, there exists within the educational community – and to a large extent, society – an orthodoxy which seeks to have all pay homage in the name of science. The orthodoxy of evolutionary science shields its tenets of faith in layers of assumptions which are seldom taught and rarely even known, much less understood. The sacred garments of science are methodically and jealously guarded in order to preserve evolution intact, philosophical matters at bay, and meliciously to attack any basis for a belief in One who is the Creator and Sustainer of the universe.

• • • • •

There is a tradition in European and English science that pre-dated Darwin by at least a century; and which, at the heart, merged science with philosophical considerations.

Sir Isaac Newton's interest and influence was not solely confined to the domain of the natural sciences. If anything, Newton showed more interest in theological matters than in issues of science; and as a committed Christian and a Biblical scholar, he saw no problem with viewing the world and nature from both a scientific and a creationist perspective. In that sense, Newton represented a well-rounded scholar who could go forth to become one of the greatest scientific minds of all time.

But those who followed Newton were not men of like stature. The mechanistic interpretation of the world to which Newton held, in the hands of others led to materialism and atheism. Their carelessness, and lack of intellectual honesty fomented a reaction in the religious realm.

Thus, by the mid-eighteenth century the stage was set for a revivalist movement which took the form of Methodism in England and Pietism in Germany. By the end of the century the romantic reaction had begun. Fueled in part by religious revivalism, the romantics attacked the extreme rationalism of the Enlightenment, the impersonalization of the mechanistic universe, and the contemptuous attitude of "mathematicians" toward imagination, emotions, and religion.

This romantic reaction was not anti-scientific; in fact, the reaction, particularly in Germany, would give rise to a creative movement – the *Naturephilosophie* – that in turn would be crucial for the development of the biological and life sciences in the 19th century; and would nourish the metaphysical foundation necessary for the emergence of the concepts of energy, atomic forces, and quantum mechanics.

Naturephilosophie grew as a discipline and was intended to provide an ongoing discourse to the questions of the origins of things, the universe, earth, life, Man, societies, etc.. But in 19th-century Europe it was not easy to contain the mysticism of the intellectual community which largely subscribed to the pantheistic monism of the East.

> To the average educated man and liberated lady in the post-Enlightenment era, the universe and nature were one vast organism, "…ultimately consisting of forces, of activities, of creations, of emergings – organized in eternal basic conflicts, in polarity…. These ideas have been expressed before and since and contain the seed of some of the scientific theories of the nineteenth century and of our time…. the aspiration expressed in the name "speculative physics." (Jones, 1953, p43)

Darwin's notions, and those of his cohorts, were attempts to bring a naturalistic perspective to the study with the hope of off-setting the more esoteric meta-physical explanations of the universe. Such notions, of course, failed to provide any observable and testable means whereby to make emphatic pronouncements, establish a legitimate code of knowledge, and offer any predictive value; thus the danger existed for Darwin's ideas to simply be logged in the musty and cob-webbed departments of philosophy in the great halls of academia. The need existed to immerse the entire culture in his notions.

> …[I]t is clear that the rise and spread of Darwinian ideas throughout the nonscientific cultural community constitutes one episode in the constantly shifting relationship between science and culture. Prior to Galileo and Newton, science had been a pursuit now more and now less respected, but of value largely in making possible technological advance. The great discoveries of Newton, however, came to mean much more than that. They were transmitted into a cosmic world view that set the pattern for every area of intellectual endeavor. (Russett, 1976, p18)

There is, and should be, a certain respect for the disciplines of science; a respect which acknowledges and adheres to strict rules of order, observation, experimentation, theory, and natural law.

Assumption and speculation, healthy as they are for the advancement of human knowledge, are to be found within the purview of historical interpretation, philosophical discourse, and social analysis and experimentation. These exercises are designed to be open-ended with ascent to Man's ever-present desire to attain intellectual knowledge and wisdom in the world of the finite.

Science, as a discipline, on the other hand, is closed-ended and objective, governed by experimental design, strict rules of research, and the striving of expected outcomes; all the while under a highly-refined method of artificial control.

ON TIME

> *Like so many others before and after him, the great historian of time falls into the trap of assuming that God is confined to the same time limitations as we human beings.*
>
> – Ross (1993, p86)

It has been suggested that mythological Darwinism has, in the best tradition of its metaphysical context, a trinity all its own: *Mother* Nature, *Father* Time, and *Lady* Luck.

We have, at length, considered the maternal aspects of this psuedo-godhead; and the element of chance is at the core of Darwin's notions. Now is the place to look at the old patriarch, Time himself.

Not the time we have come to know and live by in the form of seconds, minutes, hours, days, months, and years; and which we have relegated to the clocks and calendars of this world – and which in turn have become the chief regulators of our earthly affairs. But instead we look at the concept of historical time from which we know the record of things past and prepare the lessons for things future.

Historical time gives us a focus to learn from whence we came; and through learning our history we hopefully discover how to prevent repeating the errors of the past.

Historical time is also the lynchpin in the debate over origins. To the person holding to a literal belief in Biblical Creation, and subscribing to an earth-age of six to ten thousand years, time and history unfold the chronological documentation of Man and his course of development on this earth.

For the person subscribing to the doctrine of evolution, holding to an earth-age of 4.6 billion years, the time-scheme of modern science is only an abstract with no practical meaning other than to provide a surmise for arguments sake. In classical tautological fashion, evolutionists, in recognizing this dilemma, have proclaimed unfathomable spans of time to be true, simply because *it must be* in order for the doctrine of evolution to work its magic.

Such illogical riddles, as we have seen, are common for dogmatic thinkers as they desperately seek to answer questions and stem the confusion that their strange and nefarious notions of time generate. Beyond that, the whole notion of abstract time is mind-boggling, when you pause for a moment to fathom it.

Consider the 200 year-old grandfather clock standing in the corner of the sitting-room, patiently ticking away the seconds of each and every day. If that old time-piece could keep record of its faithful work it would show that it takes less than 17 minutes to tick away 1,000 seconds. To account for 10,000 seconds takes less than 3 hours; 100,000 seconds requires slightly more than one day.

Even 1,000,000 (million) seconds, an abstract number to human experience, takes but 11 days to accumulate. But one billion seconds requires 32 years; and it would take 32,000 years to account for one trillion seconds! Consider that there are those within evolutionary circles who yearn for a trillion year-old universe, if for no other reason than that it is completely beyond human comprehension, and therefore fathomable, in a perverted sort of way!

To illustrate in another, more practical way; if I were to give you one billion single dollar bills, the condition upon your accepting them being that everything you purchase must be with the $1 currency – individually counted – you could not personally spend $3 billion in a life-time even if every second of life were consumed attempting to do so. And yet the ubiquitous old-earthers would have us believe that our planet is 4.6 billion years old!

A history of time

Where did these notions of millions and billions of years come from; the ideas that humans have *walked* the earth for 1 million years, maybe2, maybe 3? And the dinosaurs, those terrible lizards of tale and screen, have been extinct for 65 million years, give or take a few. And the various rock strata can be dated in the hundreds and thousands of

millions of years. And the Earth itself is around 4-6 billion years old. And, of course, the universe we have all come to know and love is suggested to be about 15 billion years ancient.

It should interest the reader to know that one *can* account for these wild notions, and that Charles Darwin had a major role to play in all of this. But having said that, the active learner and historical scholar must also soon discover that Mr. Darwin didn't begin the Once-upon-a-Time fairy-tale; he only used it. In fact, as Eiseley (1958/1961) has so carefully (and repeatedly) noted, "No theory of evolution can exist without an allotment of time in generous quantities" (p58).

Benoit de Maillet (1656-1738) was perhaps the first Western European to anticipate a greater age for the world than that which the Bible (and in those days, common sense) indicated. "Still [in the 18th century] no man gazing upon the world around him dared to say its antiquity might be of the order of even a million years. A figure of a hundred thousand would have been a rash and heretical statement" (Eiseley, 1958/1961, p36).

Count de Buffon (1707-88) anticipated the need of a greatly lengthened time scale in order to account for the stratification of the planet and the history of life upon it. Notice that the Count "anticipated" a need! "Nature's great work – man," he said, "is time."

Eiseley notes that,

> By modern standards, of course, [Buffon's] estimates of the antiquity of the globe are very constricted but in his own time they were unorthodox. He thought that it had taken some seventy-two thousand years for the globe to cool from an incandescent state sufficiently to allow for the appearance of life. (p41)

Erasmus Darwin (1744-1829), Charles' grandfather, estimated the antiquity of the earth in terms of "millions of ages."

Charles himself knew that his notions of life's origin and his peculiar ideas of natural selection could scarcely be faced until the notion of great geological age came to be accepted. The time voyagers had to have vast eons in which to travel.

In Darwin's (1859/1963) words,

> … [T]he process of natural selection is always very slow (p178)…. Let this process go on for millions of years; and during each year on millions of individuals of many kinds; and may we not believe that a living optical instrument [the eye] might thus be formed as superior to one of glass, as the works of the Creator are to those of man? (p158)

Darwin was heavily dependent on the speculations of Charles Lyell who had written *The Principles of Geology* shortly before Darwin sailed on the *H.M.S. Beagle* in 1831. As the official naturalist aboard the *Beagle*, Darwin found solace in Lyell's ideas and soon came to claim them as his own. By the time his voyage had ended some four years later, Darwin's perspective of life's origins had changed – and his theology transformed. In his *Origins*, Darwin (1859/1963) pays homage to his mentor while, at the same time, giving us an opportunity to rest our case:

> Independently of our not finding fossil remains of such infinitely numerous connecting links, it may be objected that time cannot have sufficed for so great an amount of organic change, all changes having been effected slowly. It is hardly possible for me to recall to the reader who is not a practical geologist, the facts leading the mind feebly to comprehend the lapse of time. He who can read Sir Charles Lyell's grand work on the Principles of Geology, which the future historian will recognize as having produced a revolution in natural science, and yet does not admit how vast have been the past periods of time, may at once close this volume. (p289)

In fact, *years* were not sufficient for what Darwin needed in order to try and make his notions work:

> … [W]e do not err "in forming too great a conception of the length of geological periods," but in estimating them by years. When geologists look at large and complicated phenomena, and then at the figures representing several million years, the two produce a totally different effect on the mind, and the figures are at once pronounced too small. (292)

Could Darwin be suggesting what was referred to in my generation as a "head-trip", or worse, "mind-game"; a thinly-veiled form of intellectual deception? He honestly acknowledges that "Few of us know what a million really means…." (p293).

Darwin completely immersed himself in the notions of Lyellian Uniformitarianism, and in doing so made some rather ludicrous statements. In classical uniformitarian fashion, he calculated history by the "…rivulets bringing down mud, and the waves wearing away the sea-cliffs, in order to comprehend something about the duration of past time, the monuments of which we see all around us" (p290). But then, in applying Lyellianism to his biological notions Darwin laments, "Unfortunately we have no means of determining, according to the standards of years, how long a period it takes to modify a species" (p294).

The careful reader should not miss this point. Today, as in Darwin's century, the notion of evolution offers no durational parameters in support of its basic tenet, the modification of species. Although evolutionary theory needs vast amounts of time, it can offer no proof, nor give any indication, of the vary spans of time it creates. To Darwin this problem was "unfortunate"; to the evolutionist of today, it should be tragic!

The essence of time

Time – what is it? We customarily think of time as a period during which something exists, or a point at which something happens. Time is experienced by us as a moment – an hour, a day, a year, etc., as indicated by a clock or calendar. On a personal level, *time* is one's experience during a particular chronological period.

We measure time, in an experiential sense, as it is relative to the position of the stationary sun. The *solar day* is the period during which the earth completes one rotation on its axis and is determined by a fixed meridian point (the prime meridian – 0° longitude, at Greenwich, England) whereby the observer locates the sun's position on the rotating earth. The observers *day* then, is the time it takes for the sun to "return" to the same meridian in the sky, calculated to be approximately twenty-four hours.

Wood (1936), in his remarkably comprehensive, yet concise and lucid work, *The Secret of the Universe*, offers time as the direct result of motion in space.

> Time, of course, has many aspects. But essentially time is *consecutiveness* or *successiveness*. In eternity things may be, in a way which we cannot really comprehend, largely simultaneous. But here in this time-world, the world which we know so well, all things – thoughts, motions or actions, – are one after another. They are successive or consecutive. And time is essentially that successiveness or consecutiveness. (pp135-136, *italics* added)

Wood categorizes time in the physical universe as "…the successiveness of the locations of motion in space." It is, he says, "…the direct result of motion in space" (p135-136).

Wood goes on to assert that time in the physical world is relative, but differs from Albert Einstein in his devotion to relativity:

> Professor Einstein reasons that since motion is all that we know in the physical universe, – space and time being intangible, – and since motion is relative, therefore all that we know in the world of sense and substance is purely relative. And since we have no absolute standards of space and time, therefore, he reasons, there is nothing definite in the physical universe.
>
> This is healthy skepticism. It does away with our scientific arrogance…. But this which is a healthy skepticism cannot itself be made an absolute view of things….
>
> It is true that everything in space or motion or time is relative to everything else in each of the other two. But this does not mean that the world is one vast shifting interplay of space, motion and time. It is Triunity. This universal triunity, which is the reflection of the Divine Triunity [Trinity], reveals to us those relations of space and matter and time. All this interplay of relativity is but the omni-present, living, constant outworking of that absolute triunity which is the structure of the physical universe. (pp141-142)

Relativity used in this sense is poly-dimensional and not simply an abstract mathematical theory employed to describe the manifestations of light and of gravity. There is in time a three-fold pattern which is our common objective experience.

But our intellect is capable of formulating questions which cannot be answered. We plant stepping stones from the shores of the river into the ever deepening flow. The further and deeper we go the more perilous our journey. The theories of relativity, in my opinion, have been misapplied and as such represent a stepping stone, which may in fact be a stumbling block to many who seek, as Einstein did, to know the mind of God:

> I want my peace. I want to know how God created this world. I am not interested in this or that phenomenon, in the spectrum of this or that element. I want to know His thoughts, the rest are details. (Clark, 1971, p19).

The problem for Einstein, Minkowski before him, and most of the community of science even today, is time. Instead of appreciating the past, the present, and the future as attributes of the finite life experience, Einstein held time to be suspect. Instead of time being relative to space and motion, and all to each other, it was conceptualized to be of itself relative. The common finite experience of absolute time could not exist in Einstein's world due to the constancy of the speed of light which became, in turn, the final factor by which to judge all phenomena.

Einstein considered relative time to be a property of the way in which God made the world (Clark, 1971, p90). This is probably correct and could well be obvious at least for those reared in the Judeo-Christian tradition. For it is a common understanding within this world-view that God is in fact eternal, and time is not to Him a limiting force.

However, by theoretically overruling time – with its consecutiveness and successiveness as life's governing factor, Einstein self-imposed the velocity of light as the universal limit. But if, in fact, one seeks to go beyond the realm of finite limitations, then the speed of light simply must be exceeded; and with that notion science has a great deal of difficulty.

A lack of understanding as it pertains to time with its inherent tri-unity is why science is continually in the process of seeking (and often fictionizing) the future; while at the same time finding itself buried in the past – (and so often lost in the present).

When, how, and from where did (and does) the time of our common experience originate? What is the source of time? We know time to have three dimensions – past, present and future. They must all three be present in order for time to exist.

> If there is no past, time has never existed until this instant, and a little later this instant also will never have existed. If there is no present, there is never any instant in which time exists. If there is no future, time ceases now, and indeed ceased long ago. Without any one of the three, time cannot exist. It is an absolute threeness…. Past, present and future are three things which Time *is*, not three things which Time does. (Wood, 1936, p41)

The notion of evolution as we know it today is based on the *uniformitarian principle* which, in essence, insists that "the present is the key to the past". In other words, the forces operative in nature today (ie., wind and water erosion, earthquakes, volcanic eruptions, catastrophes, etc.) are the same processes to roughly the same degree as have occurred since the beginning of time.

When Eiseley (1958) reflected upon the nature of things in today's world he used the so-called "geological clock" of classical uniformitarianism and then inadvertently went on to show us where this leads:

> …It must be remembered that in geological terms we are living perhaps at the very dawn of complex human society and this is most unfortunate because *man*, in coming to understand his genetic history, *continues to look toward the past*. This is the burden which science, and particularly evolutionary biology, has placed upon man's shoulders even as it has tried to free him from the shackles of superstition. Man is, in short, in danger of acquiring a feeling of inferiority about his past. *It provides him with rationalizations for things undone and dreams defeated***.** (pp344-345, *italics* added)

Coming from an evolutionist, this recognition of the dilemma of the uniformitarian principle is a strong indictment. And as Eiseley continues to ponder the cause, he offers this observation:

> How did this situation come about? "That man is an animal is the great and special discovery of natural science in our generation," reported a contemporary of Darwin. In that remark is epitomized the whole Darwinian concentration upon the past. It is natural, it is normal, it is the reaction to be expected of a world discovering the historic continuity of life for the first time. It is, however, a literal fixation upon the past….
>
> [Man] has been convinced of his rise from a late Tertiary anthropoid stock. Through neurological and psychological research he is conscious that the human brain is an imperfect instrument built up through long geological periods….
>
> Man has lost the faith of the eighteenth century in the enlightening power of pure reason, for he has come to know that he is not a consistently reasoning animal. We have frightened ourselves with our own black nature and instead of thinking "We are men now, not beasts, and must live like men," we have eyed each other with wary suspicion and whispered in our hearts, "We will trust no one. Man is evil. Man is an animal. He has come from the dark wood and the caves."
>
> As Huxley said, it is easy to convince men that they are monkeys. We all know this in our hearts. The real effort lies in convincing us that we are men. Yet somewhere in the past a group of apes – gross, brutal, violent-tempered, with a paucity of words – started to act like men, and now they are men, but not far enough, not nearly far enough….
>
> It was natural enough, in the eagerness to communicate a great scientific truth, that Darwin's followers, more dogmatically than Darwin, told and retold the tale of the past or tried to press across the barrier that still lay between cosmic and organic evolution…. (pp344-346)

Eiseley is perfectly justified in finding that evolution and its speculative notions have placed a great burden on humankind; a burden which furnishes a negative and foreboding image of Man; and a bleak and dark future for Mankind. Indeed, evolution's bleak outlook and its fixation with the past is in vain:

> [T]ime does not come out of the past! *It comes out of the future.* And it does not flow into the future! *It flows into the past*…. [This] is a self-evident fact. We have but to take a definite date, a definite piece of time, and trace its course down the stream of time, to find at once whether that section of time moves from past through present into future, or from future through present into past. Consider, for instance, that section of time which we call "to-day," the day in which you read this page. For a long time this day was "next year," far in the future. Then it was "next week," in the near future. Then it was "tomorrow," in the immediate future. Then it became "today," in the present. Soon it will be "yesterday," in the immediate past. Then it will be "last week," in the recent past. Then it will be "last month," in the receding past. Then it will be "last year," far in the past. Manifestly, that section of time which we call "to-day" comes out of the distant future, first into the near future, then into the present, then goes into the recent past, then disappears into the distant past. That is the unbroken order of the motion of time. That is its invariable direction. (Wood, 1936, p43)

Evolution's fixation with the past and its peculiar view concerning the march of time through the past has clearly had a deleterious effect on Mankind and the view that we hold of ourselves. By forcing us to look to the past – and a speculative and nebulous past at that – and then basing that past on a doctrine of uniformitarianism, a whole pseudo-science has emerged which, in itself, is powerfully deceptive. And from that deception this non-science is attempting to lead us into a knowledge of the future – indeed, lead us to an end to time itself.

Light-years and the measurement of time

If common experience leads one to conclude that there are, in fact, three (no more, no less) dimensions to the universe and all it contains, is it possible to move beyond such experience and formulate notions which would literally redefine history itself? It is true that Man's mind is such that he can think beyond the boundaries of his experience; but are these manifestations of Man's cognitive abilities reality?

An intellectualism based upon a premise of uniformitarianism would reasonably offer a fourth dimension as a mathematically measurable variable, even though no such dimension has ever been empirically demonstrated!

Since uniformitarian evolutionary notions stretch the very concept of time beyond any semblance of reality, speculation can play havoc with the quest of Man to establish a tangible historical context. Indeed, if science is in fact dealing with matters of infinity, are the practitioners aware that in time-less eternity, history is an oxymoron?

> Does logic truly run away from reality in this matter? It seems so. Indeed, once started on that way, it seems beyond control. If a fourth dimension, why not a fifth? What would the motion of a four-dimensional figure generate, except a fifth dimension? And why not a sixth and seventh and eighth dimension? Can it be that logic runs out into an endless chain of such dimensions, further and further from reality? Can there really be such a divorce of logic from reality, and of logic based not on uncertain premises, but on the three dimensions of space and of geometry? How can the threefold reality of geometry so suddenly land us, at one move, in a world of ever-increasing unrealities? (Wood, 1936, p147)

Wood (1936), a contemporary of Einstein, notes carefully that the latter regarded time as a fourth dimension, added to space.

> Einstein believes that this fourth property or "fourth dimension," or time, is the "continuum," the thing which binds everything, including the dimensions of space, together. A point in "four dimensions," of a thing which happens, he rightly calls an "event," because it must be more than a point, it must be something which happens, in order to have a place in time. And he is sure that things occur in three dimensions of space and in one of time. Equally sure are many of his followers. Indeed much of the fabric of the newest scientific view of the universe, with its overthrow of classical physics, is built up on the assumption that, because things happen in three dimensions of space and also in time, this is a four-dimensional world, with three dimensions of space and one of time. And many announcements in astronomy and physics, scientific in their working out and terminology, are in reality based upon the purely speculative foundation of the theory of "Space-time," and are of no more certain validity then their basic speculation.
>
> And now it is announced that the entire physical universe becomes one single reality, – namely, space, – and that space has swallowed up time, by making time its fourth dimension.
>
> And finally, on the other hand, a new geometry, to embrace all the facts of the physical universe, is projected, with time as a dimension of space set forth as the basis of the new system.
>
> But is time the fourth dimension of space? *All of these things depend upon that assumption***.** Do the evidences which are brought to demonstrate that time is the fourth dimension of space stand up against the strong wind of common sense or of reason? (p148, italics added)

Emanating from this so-called fourth dimension (Space-time) stems the effort to measure vast distances in the universe by using time units as well as space units of measurement, what has been commonly held as a measurement of "light-years". Again, Wood (1936) notes that,

> At the cost of disagreeing with what many minds regard as an axiom to-day, one can only say, if one is doubtful, "It does not seem to me to prove what you say that it proves." For the fact is that the now common light-year measure of distance does not arise from the nature of distance or of space. *It arises entirely from the limitations of our minds.* Because we cannot grasp more than a certain number of smaller units of distance, we combine them into larger units for our mental convenience. It is exactly as when, to avoid too great a number of inches, we say feet, instead of inches, or when, to avoid too great a number of feet, we say miles instead of feet. In time-measurements, also, when seconds grow too many, we say minutes, and when minutes become too many, we say hours, and when hours multiply too largely, we say weeks, and when weeks add themselves into a great total, we say years. We manufacture larger units to bring the total number better within the grasp of our minds. We manufacture light-years simply as a larger unit of measurement. If the use of time in measuring distance lay in the real nature of measurement of space, we should have to use time in all

> measurements of space. We should have to use it as a factor in measuring short distances. But we do not use it so at all. We do not use time as a factor in measuring feet or metres, or in measuring miles on the earth. The only people who use it so are those whose mental ability is so low that they cannot compute space distances at all, and who say, "It is so many days' journey," or "so many hours' journey," or "it is as far as a horse would travel between sunrise and sunset," or "as far as a man could walk, carrying a sheep, between moon and moon." It is all a matter of constructing larger units of measurement so as to bring down the total number of units to the range of our comprehension. It does not at all show that time is a dimension of space. (Wood, pp149-150)

Most people understand "light-years" as a tenet of science and are therefore led to think in terms of time as opposed to distance when measuring the vast dimensions of the universe. The millions and billions of years at 186,000 miles per second lend credence to a notion of an infinitely ancient universe. In point of fact, it is intellectually dishonest to claim that the boundless infinity of space and the vast immensity of limitless time, even if each are shown to be a credible notion, for them to be considered analogous.

Suppose that all within the universe, indeed the universe itself, had been created at a level of full maturity, as in fact creation records bear out. Applied to Man, Adam was not conceived in a womb, developing through a period of gestation, given breath at birth, and then nurtured to adulthood in any credible creation account.

Trees did not appear by way of the acorn; instead the mature oak initially dispersed its seed for the subsequent regeneration of its species. Which came first, the chicken or the egg? In all creation accounts the mature hen delivered the first egg which then hatched to bear the first chick.

Those who are overwhelmed by an evolutionary numbers game need take pause to consider the limitations of human reasoning, exercise common sense, and realize the true history of unimaginable numbers given for life's evolution and ages of the universe. *"Light-years" as a measurement is legitimate for distance only, having nothing realistically to do with time.*

Time and eternity

The issue of time inevitably leads one to the matter of eternity. It is especially disconcerting for Man to admit certain limitations; and indeed, it has been Man's ability to challenge limits that has allowed much of society's advancement at least as it regards science and technological forces. None-the-less, a level of honesty and maturity is shown when one admits that there are simply things which the human mind cannot achieve.

Such is the nature of eternity. Being a created being living in a created realm, a realm which has as one of its dimensions time, Man finds himself limited to an existence within time, and a knowledge which is greatly limited in scope to that of the Omniscient; and is, furthermore, incapable of transcending this basic reality. To reason eternity, where all events occur simultaneously, is simply beyond human comprehension.

And yet eternity, omniscience, and omnipresence are realms of existence clearly revealed in recorded Scripture, not for understanding but for our knowledge of their existence. The knowledge of eternity, for example, although at times perplexing to the believer and denied by the skeptic, is given as a promise, a comfort for those growing old in time and hoping for release into an existence where time and sequential events, many of which are troubling, will be no more.

Basing their projections for the future on uniformitarian assumptions, evolutionists recognize that they have a significant problem when it comes to an understanding of eternity. Relying on an evidence for age calculated upon space-time formulas (i.e., light-years) a breaking point occurs in Einstein's general theory of relativity at the so-called Big Bang event where the density of the universe and the curvature of Space-time would have been infinite (eternal).

Evolutionists generally believe in an expanding universe which is probably destined to expand forever; but this probability rests on a predictive value that asserts an eternal existence since there are obvious events which must have occurred before the Big Bang (Hawking, 1988, p46). The infinite density and absolute zero distances at the point of Big Bang are simply another way to express a creative event (Divine Detonation, if you will) produced by an omnipresent, omniscient, eternal being.

The dilemma for evolutionists in acknowledging such a fact is that we can know scientifically only those events, happening in time, *since* the Big Bang occurred. In this regard Hawking (1988) is correct when he notes that,

> As far as we are concerned, events before the big bang can have no consequences, so they should not form part of a scientific model of the universe. We should therefore cut them out of the model and say that time had a beginning at the big bang. (Hawking, p46)

Although we can readily accept Hawking's quest for true science, his self-imposed limitations should be applied equally to his careless bantering of assumptions which lend an unacceptable credence to notions of an ancient universe and the rather bizarre speculative conclusions such notions suggest:

> The present evidence therefore suggests that the universe will probably expand forever, but all we can really be sure of is that even if the universe is going to recollapse (sic), it won't do so for at least *another* ten thousand million years, *since it has already been expanding for at least that long*. This should not unduly worry us: by that time, unless we have colonized beyond the Solar System, mankind will long since have died out, extinguished along with our sun! (Hawking, 1988, p46, italics added)

It is apparent from this discussion that Hawking and others of like mind feel that within the human consciousness there is a desire to account for eternity regardless how unscientific such a quest might be. This longing for a sort of cosmically-generated eternal order is most evident in the belief systems of the East where cyclic rounds of time represent a limitless, never ending universe and a karma-like existence.

Much of the scientific community finds itself entertaining Eastern mystical concepts, and frequently employs these notions within their discussions. Perhaps the most recent example of this pandering of Eastern ideas occurs in the field of quantum mechanics which is addressed later in this book.

But in the study of the multi-dimensional universe, and the mathematical formulas generated to attempt to predict this notion, it was conjectured at one point that the grouping of elementary particles formed an octet. Without reservation it seems, this pattern of eight was dubbed the *eightfold way* with the following parenthetical added: "The term *eightfold way* also hints at the essential path of Buddhism (Peat, 1988, p78)."

As science delves ever further into the cosmic realm of the universe as well as the micro realm of quantum events, it finds itself increasingly utilizing abstruse, even occultic concepts. And since most (if not all) of the outspoken leaders within the "scientific community" have rejected the Biblical Creator as a purely religious idea foreign to science, they find themselves with nowhere else to turn but the esoteric and frequently bizarre notions of Eastern mysticism.

Indeed, religion does have an influence on the intellect, even in the "advanced" decade leading to the 21st-century! There is every reason to assert that this scientific quandary is the result of the evolutionary notion and its mishandling of the realm of time.

Eiseley (1958/1961) has a poignant discussion of the true essence of time and the impact it has on the religious beliefs of humanity. Historically the notions of unfathomable spans of time employed by evolutionists pre-date the Christian era in both Eastern and Western civilization.

> With the rise of Christianity a sense of time totally unlike that entertained by the historically shallow primitive or the endless cycles over which Greco-Roman thought had brooded in antiquity took possession of the European mind. The Christian saw time, worldly time, as essentially the divine medium in which a great play – the drama of the human Fall and Redemption – was being played out upon the stage of the world. This drama was unique and not repetitious. Older pagan notions of eternal recurrent cycles were blasphemous to the Christian mind. "God forbid," protested St. Augustine, "that we should believe this. For Christ died once for our sins, and, rising again dies no more." Thus in the words of Professor Lynn White "the axiom of the uniqueness of the Incarnation required a belief that history is a straight line sequence guided by God…." (Eiseley, p60)

Eiseley acknowledges that the uniformitarian school is essentially a revolt against the Christian conception of time as limited and containing historic direction (p114).

It was the Scott, James Hutton (1726-97), the "founder of *historical geology*", who resurrected the Eastern notion of boundless time – time without end (Eiseley, p65).

William Smith (1769-1839) used Hutton's notions in his work in stratification which gave the world a different look at time; a time essentially of Hutton (p79). Under Smith the "ladder into the past" was created. With

this understanding of geologic time and with uniformitarianism to guide them, 20th-century geologists began to forge geology as it is presented to us today.

And so the age of the earth grew, and grew, and grew, *ad infinitum, ad nausium;* not by scientific proof, but by intellectual fiat.

This intellectually energized climate offered a nesting place for Lyell (1797-1875) to write his book – *Principles of Geology* – and in it introduce the doctrine of unlimited time. And, "Without the public revision of attitude on the subject of time and natural forces working over inconceivably long intervals Darwinism would have had little chance of acceptance" (Eiseley, p99). In other words, from Lyell's egg (*Principles*), Darwin's notion (*Origins*) of evolution was hatched.

MATHEMATICS AND OBJECTIVE REALITY

Mathematics holds an exalted position in Western science, not simply as a tool for purposes of calculation, but for its predictive value as well. As such, it gives every appearance of working in all areas of the practical sciences. A case could certainly be made that numerology appears to work; and so does the lottery. But at what cost? Is science allowing mathematics to become an end unto itself?

> [Consider] the way in which so often men's minds working in abstract mathematics have developed a system of principles, postulates, theorems or the like, which then at some later time turns out quite independently to describe with remarkable accuracy the actual events taking place in the physical world….
>
> Why should these presuppositions be accepted? Why should we think that these presuppositions are valid and reasonable?... [T]hey are reasonable because there *is* a given structure, there *is* an objective reality, there *is* subject matter for the pursuit of science. Furthermore we are made in the image of God and therefore have the possibility of understanding at least partially what this structure is like. (Bube, 1985, p14)

It is because the universe has been created in an orderly fashion that Man is capable of using his God-given intellectual abilities in learning how the universal mechanics operate. Newton, and to a certain extent Einstein, recognized this order and appreciated the genius behind it as they constructed their formulas for universal inquiry. So long as science and mathematics rest their belief on this premise then progress within their respective and combined realms will generally be benevolent. On the other hand, we deviate from this understanding of the universe of everything to our peril.

Science in the ancient world, based largely on astronomical observations and numerical calculations, was intricately involved with several emerging mystical and religious systems. Whole theories of the universe were based on numerology in ancient China and are codified in the *I Ching*, or *The Book of Changes*, one of the central texts of Confucianism. Although rejected by the empiricist scholars of the Ch'ing dynasty, the numerological aspects of the *I Ching* are being reemphasized by Westerners interested in Eastern mysticism.

Pythagoras of Samos, c.560-c.480 BC, the Greek philosopher, religious leader, astronomer and mathematician believed that all interactions could be reduced to number relations; and his followers developed the doctrine that the world can be understood through mathematics even if the explanations involved the use of irrational numbers.

Greece was the mother of Europe; and it is to Greece that we look in order to find the origin of many of our modern ideas.

> The Greek genius was philosophical, lucid and logical. The men of [the Ionian school] were primarily asking philosophical questions. What is the substratum of nature? Is it fire, or earth, or water, or some combination of any two, or of all three? Or is it a mere flux, not reducible to some static material? Mathematics interested them mightily. They invented its generality, analyzed its premises, and made notable discoveries of theorems by a rigid adherence to deductive reasoning. (Whitehead, 1925/1962, p14)

When history is viewed within the context of great movements, we characteristically find that the Egyptians sought after wealth; the Greeks after beauty; the Romans after power; and the Hebrews after truth. With a broad sweep, its not hard to see that each of these movements developed a theology which, in turn, spawned a number of profound and varied myths.

When history is pursued from a slightly different angle, however, one finds, woven through all the cultures, and all the ages, an abstract intellectual theme – a desire to showcase, with great personal pride, the ultimate in human reason. If one were to count the monumental intellectual works through the ages – those which have been, in some manner recorded for the use of human posterity – the desire to *know*, and the pride inherent in possessing this "knowledge," is endemic within the human soul.

Mankind's capacity to think, to reason, to intellectualize, to speculate, in many ways seems boundless – infinite if you will. In fact, raw human thought and the ability to reason esoterically are the vehicles which some in the intelligentsia would use to travel beyond the dimensions of Man's limited existence into certain realms perhaps best left unexplained.

Life has its limits. But rather than choose to live with the security that such limits could produce, some have chosen to challenge those limits; and by taking such a course have left mankind with a mixed bag of tricks.

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Realizing Man to be an incorrigible universe-builder, with the naturally unrestrained ability to throw the full weight of his genius into the scales of speculative theorizing, Sir Francis Bacon, the 17th-century philosopher, essayist, and statesman, set about to establish rules of order to Man's insatiable urge for knowledge and truth. In his *Advancement of Learning* (1605) he applied the method of *induction*, the approach to discovery generally used by modern applied science; as opposed to the *a priori* (deductive) method of medieval scholasticism. (cf. Whitehead, 1925/1962, pp42-46)

Bacon recognized the inherent dangers of unbridled speculating. He appreciated a place for intuition and inspiration but felt strongly that their place was not to be included in the methods of science.

The hypothetical method and private presuppositions are certainly legitimate intellectual pursuits, but the process must be guarded jealously lest a course of wild speculating in the good name of science be unleashed upon Mankind and his progeny.

> Bacon himself regarded [hypotheses] with grave suspicion, for he had an aversion to "phantoms" of any sort. In his opinion hypothesis had no lawful place in scientific procedure, and he went so far as to urge that it be banished as a disturbing element. Hypothesis came to mean the illusory, the fanciful, the hallucinatory which could build an imposing but unreal system of thought. Consequently, Bacon urged a knowledge of general laws extracted from nature through direct observation. Because an hypothesis has often exercised a distorting influence (since the idea involves anticipation of the fact) he washed his hands of them all. (Trattner, 1938, p380)

Much of science today ignores this sound advice. Present science has evolved a methodology which subscribes to the notion that theoretical orthodoxy grows less possible, less definable, less conceivable as exploration into the far reaches of space and the inner workings of the atom progresses. And as such, speculation has become an increasingly viable approach in doing science.

Charles Darwin was an early practitioner of this speculative approach; and this thread of reasoning runs through Einstein, becoming, in turn, the cloak of much of science today.

Sir Isaac Newton, working in the wake of Bacon's notion of pure science, was ever mindful of the pitfalls of speculating. His monumental works on the nature of light and the law of gravity led him to picture a sort of universal and ethereal cause; but he considered such ideas to be only queries outside his search for scientific law based on experimental observation.

> [Newton's] restraining balance prevented his imagination from sweeping him into the scientific mysticism which has so dominated the minds of Professor Einstein and his school. To Newton the universe was an objective reality, whose phenomena and laws we could to a limited extent verify and establish; to them it is a mental phantasmagoria as foreign to experience as were the mediævalists' conceptions of heaven. (More, 1934/1962, p610)

For the sake of human civilization we would do well to return to the insight and wisdom of Francis Bacon and find that restraining balance between science and query. Science needs to rediscover its unique and limited purpose in the ubiquitous quest for knowledge. Private presuppositions should have no place in science. And in this regard science is severely limited and should always be viewed as such.

> Science is one attempt to understand and describe the structure of the world. It is an attempt based upon a specific methodology, which limits both the questions that are asked and the answers that are received. Scientific truth is a partial kind of partial truth. It is a partial kind of truth since our scientific understanding is always incomplete and changing to conform closer and closer to the objective reality given to us. It is a kind of partial truth since it probes only certain aspects of reality and neglects whole realms of other aspects.
>
> … Man can imagine what he will; his thoughts are confirmed only if they are consistent with that pattern of created structure which is given to him, which he did not form, and over which he has no ultimate control. (Bube, 1985, p8)

It is this constant challenging of the natural limits which, with the aid of the technological explosion, is taking us ever so deeper into realms of the foreboding! It is within the context of this understanding that the following chapter was written.

QUANTUM PHYSICS AND THE *ETHER* OF OLD

A Leap of Faith Among Atheist Ranks

Ether

An invisible, immeasurable, intangible substance representing the fundamental and essential nature of the universe.

Quantum physics

An invisible, subatomic universe where time is reversible and matter may be annihilated and created in billionths of a second (Pelletier, 1978, pp443).

The extraordinarily tiny (Hawking, 1988, p51).

Black hole

A point in space at which the whole structure of space-time breaks down and all the laws of physics vanish (Peat, 1988, p127).

The notion of the black hole singularity applies not only to the cosmic universe, but to the inner space of sub-atomic "particles" as well (Peat, 1988, p20).

In an attempt to account for the unaccountable, see the unseeable, test the untestable, predict the unpredictable, and know the unknowable – *mankind's ultimate hope* – science, during the past three centuries, has found itself dabbling in what would best be described as the metaphysics of old (cf. Trattner, 1938, p149).

Initially a magic medium was devised whereby the notion of light waves could be speculated and investigated. This medium, called *ether*, was devised by the Dutchman Christiaan Huygens, and was represented as something supersensible; something which could not be seen, weighed, or isolated. Yet ether, with its strange and paradoxical characteristics, was held to pervade all space throughout the universe and to permeate all material things. Sir. Isaac Newton, Huygen's contemporary, regarded the ether-concept as something superfluous and not to be reconciled with his celestial mechanics (Trattner, 1938, p150).

Today many novice dabblers in science are easily influenced by metaphysics; and finding religious solace through esoteric notions, euphemistically refer to these ubiquitous phenomenon as "The Force".

By the same token some in the scientific community, in rendering the things of God to be unscientific (unseen, untestable, without substance, etc.) have adopted quantum theory as a sort of modern-day ether. Only here they deal statistically with "probability concepts" which somehow become scientific "facts" made up of principles of uncertainty, imaginary numbers, ephemeral phenomena, massless elements, infinitely dense particles, fictional time, and time travel, among other fantasies (cf. Hawking, 1988).

They strive for mathematical predictability, and that alone, to gain scientific merit; and they seek to re-define "matter" as something beyond substance, descending into atomic regions where all is energy and power, knowing full well that the inner structure of the atom is basically that of vast and primal energy, lacking material essence.

The quest of natural scientists in our day is to find the ultimate *Out* and the absolute *In*. Their telescopic and microscopic probes towards transcendent enlightenment are designed to find measurable boundaries so that a more traditional science can operate. They hope to find an edge to the universe as well as a substance somewhat smaller than the quark. To these thinkers there can be no infinite, eternal, omniscient, omnipresent, *personal* force; the power they seek must be a nebulous, ethereal, impersonal, *Process*. The dilemma for the physicist is that in true science this process cannot be transparent – it *must* have body and substance!

Many of these theorists are atheists who seek ultimate transcendent and metaphysical answers within a scientific milieu. They are forced to step beyond the science of physics, the tangible and even the theoretical

(classical cause and effect), and move into the realm of probability (Trattner, p160). No longer are the traditional criteria of science sufficient – observation, experimentation, the empirical validation of hypotheses – but now it is felt that new parameters and rules must be established for the enlightenment of mankind.

The macro-sphere of Einstein's general theory of relativity says that any large object acts in an entirely predictable manner. The micro-world of quantum mechanics, on the other hand, merely makes statistical predictions for the behavior of subatomic matter. "This means that there are different rules for these two realms" (Boslough, 1989, p576).

There are countless subjective and epistemological perils that lie along that path. This process could easily lead to an elitist, esoteric, even Gnostic solipsism, where only the Self holds all answers, and finds blissful solace in believing so. "To deny the universal validity of causality," as Trattner (1938) saw it, "is to strike at the very roots of science as humanity has known it since the days of Galileo and Newton" (p160).

True science seeks a measurable substance; at these levels a power with velocities that can be calculated. The speed of light seems to block any advancement in this regard and the Theory of Relativity cannot go beyond it. Could it be, as Wood (1936) suggests, that velocity beyond the speed of light is simply that speed "at which the outspread power of God, – the reality of space, and the true norm and basis of the universe, – passes everywhere into energy and action;" giving added meaning to the phrase: "God is Light"?

Astronomy and physics are quickly approaching the limit of their legitimate inquiry; and some have recently speculated an operative realm beyond the speed of light. As telescopes such as that aboard the Hubble spacecraft peer ever farther into the cosmic universe they "clock" receding galaxies traveling in excess of 600 million miles per hour, where the limit of light's velocity is 669,600,000 mph. The Hubble Law, which is the foundation of the scientific story of origins, states that galaxies recede at a higher speed the farther they are removed from us.

Allen Sandage has compiled information on 42 galaxies, ranging out as far as six billion light years from us, placing them at 36^{21} miles distant, and traveling at speeds approaching the speed of light. And that apparently is not the "end" of the universe!

What happens when we realize that there is no material edge to the cosmos; and that beyond our material experience that energy, Light – God, exists? It seems reasonable to suggest that there might be another dimension "out there" that could be close enough to touch were our senses capable of doing so. Can physics admit such things manifestly mentioned so frequently in the Scriptures (Jastrow, 1978, pp85-95).

Physics, working at the subatomic level, has reached the same limits. In formulating mathematical theories to aid in their search for the Holy Grail of physics – the Grand Unification Theory – they have discovered that the notion of superstrings (the presumed most elementary of particles), must be found to be massless with their ends moving at the speed of light (Peat, 1988, p108).

Theoretical physicists are now stuck at the extra-dimensional level, but cannot determine the number of such dimensions (anywhere from 6 to 26), and still find themselves operating on the notion that we exist in a four-dimensional universe – three of space, and one of time – instead of a 3-9 realm: Space (length, breadth, height), Matter (energy, motion, phenomena), and Time (past, present, future). Until they move beyond this notion, with its inherent fear of the tri-une God, a correct understanding of extra-dimensional existence will continue to be elusive, and bewilderingly deceptive.

> That outspread power of God [for atheists this would be ether or quantumness] is discontinuity and continuity at once. It is source and medium at once. It is spirit and matter at once. Is not this the true continuum? Is it not that primal reality toward which the idea of "ether" points? *It does all that ether ought to do. It does what ether cannot do. It is free from all the objections to ether*…. [W]e know that energy is the essential element in "ether." Substance creates all the difficulties of ether. This universal creative power, passing into energy, and free from the impossibilities of substance, seems to be what ether really means. (Wood, 1936, pp127-128, *italics* added)

But what of the objections to modern-day quantum notions? Although Hawking (1988) fears universal determinism in the quest for a complete unified theory, he does present a valid point:

> Today scientists describe the universe in terms of two basic partial theories – the general theory of relativity and quantum mechanics. They are the great intellectual achievements of the first half of this century. The general theory of relativity describes the force of gravity and the large-scale

> structure of the universe, that is, the structure on scales from only a few miles to as large as a million million million million (1 with twenty-four zeros after it) miles, the size of the observable universe. Quantum mechanics, on the other hand, deals with phenomena on extremely small scales, such as a millionth of a millionth of an inch. Unfortunately, however, these two theories are known to be inconsistent with each other – they cannot both be correct. (pp11-12)

Not only does quantumness run headlong into Einstein who could not abide the randomness of quantum mechanics ("God does not play dice with the world," he declared); but of Newton, the gravitational theorist who most certainly would, as he did with ether, refer to quantum notions as superfluous.

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The goal of present-day quantumists is to find and propose a unified theory which could incorporate both the Theory of Relativity and quantum mechanics, a theory which would meet the rigors of both a Newton and an Einstein; a theory which could rightfully be called, "a quantum theory of gravity" (Hawking, 1988, p12). Could this be the ultimate search for the sustaining and providential power of God in holding all in order? (Compare to Colossians 1:15-17)

The real question here is how do we, as finite beings, enter from a world of substance into the spiritual realm? More specifically, how do we go from the material realm of scientific investigation into the spiritual domain of the atheist? For that matter, what is the spiritual domain of the atheist?

In the 1970's K.R. Pelletier, the author of *Mind as Healer, Mind as Slayer*, wrote another book, *Toward A Science of Consciousness* (1978) in which he attempts to weave a quantum thread which would bind together the material and the spiritual.

In his chapter entitled "Quantum Physics and Consciousness" he begins with a discussion of Western science. It is important to note the term *Western* because, although "… this approach [using Western logic] has been particularly well suited to the discovery and application of the laws governing the material universe,…" it fails completely in dealing with things spiritual – to Pelletier, the mind.

Within this approach, the investigator is invited to view the objective as part of himself, an illogical and apocryphal notion foreign to the West, but an integral part of Eastern philosophy, metaphysics, and demonic-based religions. "With [the advent of quantum physics and Heisenberg's uncertainty] principle, *man was reinstated as an inseparable participant in the universe he sought to measure and define"* (Pelletier, 1978, p33, *italics* added).

Pelletier, writing about mental constructs within this strained view of science, bridges the material with the spiritual through this observation: "[T]here is a clear parallel between the orientation of quantum physics and the concept of projection in psychology." He describes *projection*, and legitimately so, as "an interpretation of events arising from the individual's own experiences and feelings…. When a person engages in projection, he is generalizing his own idiosyncratic way of perceiving, yet, *he assumes that he is making an objective assessment of the external world*…. [As in the Rorschach inkblot tests] there are no right or wrong answers; the very intent of the test is that the individual *project* or externalize his own fantasies, wishes, and unconscious processes. The essential feature of all projective methods is ambiguity" (p43, *italics* added).

In order for Pelletier to blend the material with the spiritual, the tangible with the mental – within his pantheistic world-view – he has no choice but to make such an observation, and thereby, confession. But Western science cannot abide by this indictment since to do so would endanger the tradition and allow the public at large to disparage the good reputation science holds with accusations of metaphysics, psuedo-science, and parapsychology.

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The discipline of psychology has long been the bastard child of science and, as such, has been trying desperately to gain legitimacy among the elite circles of science for the past two centuries. During this time three primary modes of psychology have emerged, generally in this order: Analytical, Behavioral, and Humanistic; and over the later half of this century we have been introduced to a fourth mode, referred to generally as "Fourth Force Psychology."

This fourth force in psychology, known collectively as "The Human Potential Movement", has been the primary vehicle used to introduce Eastern mysticism into Western science and culture in the latter half of the 20th-

century. One could comfortably fit Pelletier into this "New Age" movement; and with his bridge as just described, quantum mechanics as well.

The sciences have advanced so rapidly and with such authority that to experience insurmountable limits is frustrating given a context of unlimited expectations and encouraged feelings of omnipotent potential. Astronomers have seen what can be observed; and physicists have felt what can be measured. Now some would see their role as that of arbitrator between the abstract and the concrete. But how must it feel to build your house on the shifting sands of time?

> [Consider] the plight of the quantum physicist who is faced with a bewildering array of subatomic phenomena: "virtual particles," "tracks in bubble chambers," "collapse of state vectors," "black holes," "vacuum fluctuations," "infinitely boot-strapped, geodelized hadrons," and the elusive "charmed quarks." Since the phenomena themselves do not inherently dictate any particular interpretations, he is free – indeed obligated to extrapolate as ingeniously as he is able….. *[I]t seems very likely that the physicist's theories reflect his own subjective perceptual system rather than any absolute qualities of material reality.* (Pelletier, p44, *italics* added)

It is clear that this conundrum follows Pelletier's line of reasoning when we see him prodding the field of physics for not thinking anew its structure and its mandate. Pelletier would be ready, in a moment, to introduce subjectivity into the science discipline as a positive factor; not as a variable to control for, but as a "right" unto itself. He fully recognizes and appreciates the fact that, "quantum physics does project properties of mind upon matter" (p44)….

> Although a number of properties have been subsumed under the rubric of "particles," in fact, no actual particles correspond to the labels. The quantum physicist's objects of study, the most fundamental interactions of matter and energy, are utterly invisible in their natural state. From such shadowy clues as his experiments provide, he postulates the existence of such entities as virtual particles, particles going backward in time, negative particles or antimatter. He resorts to descriptors such as "strangeness" and "charm" and proposes that the elementary particles may be composed of even more fundamental entities termed "quarks". It might be argued that the labels do not matter and that *the real issue is the mathematical formalism to which the labels refer*…. [I]f the scientist looks carefully at these formalisms, they appear to be descriptive of the structure of his own mind. At this level, ontology is equivalent to epistemology…. (Pelletier, 1978, pp44-45, *italics* added)

So much for science as we've been taught to know it. So much for the process, the rigors, the methodology, the discipline, and all that science has challenged us with over the past three centuries. Newton and Einstein, scientists that they were, would turn in their graves were they to know some of the non-science that passes for science today.

Physicist Stephen Hawking, who sits in the Newton chair at Cambridge, is certainly impressed and appears fixated at this level of thinking. In what is perhaps his most popular work, *A Brief History of Time: From the Big Bang to Black Holes* (1988), Hawking starts with a bang and ends with a fizzle. I've a hunch that this is the experience of all quantumists who peer through their scopes hoping to find the ultimate essence.

Hawking (1988) bravely asserts that "we have some theoretical reasons for believing that we have, or are very near to, a knowledge of the ultimate building block of nature" (p66). After discussing the failure of early and recent attempts to weld a successful unified theory of the universe, Hawking warns against overconfidence, while still retaining "grounds for cautious optimism that we may now be near the end of the search for the ultimate laws of nature" (p156). Realizing that this quest for the ultimate knowledge within a "scientific context" will, of necessity, lead to extreme specialization, Hawking asserts that *only a few people could gain this exciting understanding of life and the universe* (p168).

But, after all his effort, Hawking concludes that we live in a bewildering world! He has no answers, only questions. He acknowledges that his finely-tuned and mathematically formalized theory (the so-called superstring theory) lacks any observational evidence; and yet, in all of his contemplating, and in searching for God, Hawking asks, "And who created him…. [What is] the nature of God?" In the final analysis, Hawking, the pop-physicist and atheist from Cambridge, has no other goal in life than, as he acknowledges, to "know the mind of God" (pp174-175).

In contrast, consider the comfort one finds in a personal knowledge of the Creator of the universe and all it contains. No less eminent a personage and great thinker of the ages than Sigmund Freud, at the conclusion of *his* bewildered and troubled life, could recognize the reality of it all:

> How we who have little belief envy those who are convinced of the existence of a Supreme Power, for whom the world holds no problems because he himself has created all its institutions! How comprehensive, exhaustive, and final are the doctrines of the believers compared with the labored, poor, and patchy attempts at explanation which are the best we can produce! (1939)

We should not soon forget that what distinguishes science from alchemy (whence science emerged) – alchemy, which arose out of the ruins of the antique world of thought, heavily encrusted with mysticism, obscurantism, and obstructionism – was its reliance on objective methodology, a methodology which, for the greater part, refused to be swayed by false and dogmatic methods of reasoning.

To continue in the direction in which we are going is bound to have a profound effect upon our society, and no doubt already has. Failure to teach our youth how to base their viewpoints and understandings upon sufficiently examined premises has allowed them to be indoctrinated; and this could well lead to our downfall as a culture!

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Danish physicist Niels Bohr believed that the observer, through his or her observations, actually brought about quantum events. To present this view philosophically, Bohr noted that "the act of observation dissolves the boundary between the observer and the observed (Ross, 1993, p94)." Theologically speaking, All is One, even as One is All!

Obviously, this mode of logic does not bode well for Western thought and classical science. To believe that the observer actually gives reality to the quantum particle is to grant that observer (be it animal, plant, mineral, Man!) the fiat card of Creator. To say that such thinking is beyond science is a given. To say that such ruminating is blatant arrogance is to put it mildly.

This stream of logic, taken to its ultimate conclusion (and who can stop mid-stream in this torrential flow?) is to imply, and then assume, that the mind of Man creates the universe. Is this where the speculations of Hutton, Lyell, Darwin, Huxley, Freud, et al. have taken us?

Ross (1993) challenges the assumption head-on:

> The observer does not give reality to the quantum entity. The observer can only choose what aspect of the reality he wants to discern. Though in quantum entities, indefinite properties become definite to the observer through measurements, the observer cannot determine how and when the indefinite property becomes definite. (p95)
>
> Rather than telling us that we human beings are more powerful than we otherwise thought, quantum mechanics tells us that we are weaker. In classical physics, no apparent limit exists on our ability to make accurate measurements. In quantum mechanics, a fundamental and easily determinable limit exists. In classical physics, we can see all aspects of causality. *But in quantum mechanics, some aspect of causality always remains hidden from human investigation.*
>
> [Moreover], experiments in particle physics and relativity consistently reveal that nature is described correctly by the condition that the human observer is irrelevant…. There is nothing particularly special about human observers. Inanimate objects, like photoelectric detectors, are just as capable of detecting quantum mechanical events. (pp95-96, *italics* added)

A bit humbling, isn't it? But then, shouldn't the whole process of science lead to a humbling experience? After all, through finite human intelligence and the disciplines of science we seek the mind of God, not in matters theological or philosophical or spiritual, but in seeking a clearer understanding of the workings of His marvelous creation. Anything but a humble attitude within such splendid context can only lead to folly!

> [The flows of quantum mechanics, just enumerated] punctuate what should be obvious to all – the human race is neither powerful nor wise enough to create a universe. To say that we created our own universe would imply that we can control time and restructure the past [as well as command – master, govern – the future]…. Today there are scientists and philosophers and mystics who are willing to claim that we humans are the creator. (Ross, 1993, p96)

When reality becomes observer-dependent, as in the case of Einstein's special theory of relativity, and in the underlying assumptions of quantum theory, then absurdity and gross illogical constructs are sure to follow. When this absurdity becomes a burden upon specific disciplines in the academic world, and has an adverse effect upon life in general; and when the absurdity becomes entrenched within the intelligentsia of a culture, then weeding through the maze of irrational premises can be a weighty challenge.

Einstein, in reacting to the ether and quantum notions, formed an irrational defense, asserting that *no* medium was necessary in order for light waves to operate. But, "[in order to] preserve the absolute nature of the speed of light, – [move toward the light source, and you will detect it approaching you at the same speed as someone who is standing still] – space and time had to be distorted" (Bethell, 1993, p16). This distortion leads to inevitable conflicts as Hawking and others have discovered.

> The alpha and omega of the material world – the irreducible character of time and space – were sacrificed in order to preserve an absolute velocity. But velocity itself is nothing but space (distance) *divided* by time! (Bethell, 1993, p17)

Einstein's general theory of relativity also harbors an inherent problem when it comes to the matter of time, as well as space; and his notions relative to space-time are highly spurious. Not only was Einstein reacting to the notions of ether and quantum mechanics, he appears to have been pigeon-holing certain observations and "discoveries" in a fashion that made them appear pragmatic; but in reality his "solutions" caused problems in other areas of scientific inquiry and theory.

> In 1916 Einstein modified Newton's *Principia* with general relativity. While Newton's universe was clocklike and stately, Einstein's was strange and unsettling. Gravity was not a simple pull, but the very architecture of the universe itself. His universe was a single vast bed of gravity, not a hodgepodge of billions of attractive forces.
>
> According to Einstein, in a perfectly uniform universe – one containing no matter – there would exist only time and a vast sheet of space, representing the possibility of gravity. Gravity would not yet exist. But if you put matter, say a star, into this universe, you would distort the sheet of space-time, like setting a cannonball on a taut sheet of canvas. This dimpling effect is gravity.
>
> …In terms of general relativity, then, gravity is simply a curvature caused by material objects in space-time. The universe itself, a machine fueled by gravity, is a consortium of the curvatures caused by all celestial objects pushing against the canvas of space and time.
>
> Its a difficult mental image…. "The metaphor of the cannonball on canvas leaves out the dimension of time so crucial to Einstein." (Boslough, 1989, p575)

The problem could in fact be that scientific explorers of the universe – both the universe within as well as the universe without – in rejecting the God of creation, His attributes and His creation, have found themselves groping for answers to the time-honored ultimate questions. Questions such as, What is time?; What is space?; What is gravity?; What is matter?; – these questions are ultimate concerns that would not appear to lend themselves to finite, carnal answers.

Consider gravity, for example. Though all material things within the universe appear to be effected, to one degree or another, by gravity's force, still "nobody knows exactly what drives gravity – what makes it happen" (Boslough, 1989, p576).

Einstein spent his last thirty years trying to find a single theoretical statement that would explain the behavior of both sub-atomic particles within, and the curved geometry of gravity without. Today physicists assert that Einstein's elusive "theory of everything" may well lie at the beginning of the universe" (see Boslough, 1989, p576).

"In the beginning God…." now holds a profound significance in the realms of science, the result of the quest for the ultimate source for the ultimate question – How did *all* begin? What *is* the secret of the universe?

• • • • •

Can the secret to the universe be found in dissecting the whole into separate parts and compartmentalizing the areas of specialization, with the hope of reconstructing the perfect sum total leading to the Source? Is such a process possible from a finite perspective? Can we divide (ultimately even ourselves) and at the same time conquer?

> Of course we cannot with human minds reach out to the ever-receding infinities of universe beyond universe of stars. Neither can we reach inward to the equal infinities of world within world in the atom. This does not need words. We know that we can never do it. We cannot grasp what it really means that a certain island universe is millions of light-years away. We cannot grasp what it means that the electron moves in its orbit around the proton in the atom a quadrillion times a second. It is no shame to us that we cannot grasp such things as these. *Our minds are not geared to the infinite*. If they were, could we harness them any more to the ledger, the plough, the tool-chest or the cookstove? What would it profit to grasp the nebula and the electron, and starve or freeze? *But our minds do seem fitted to understand*. They can apparently understand the quality and meaning of things whose immensity they cannot grasp. They are evidently fitted to understand everything which can be understood. That seems somehow to be what they are for. (Wood, 1936, p13, *italics* added)

The word *universe* means unity, a complete unity constituting one system or whole; *unity* from the Latin *unus* meaning "one" plus *versus*, "turned toward". What of the individual within the universe of the whole? Universe/individual – how is such a seeming paradox possible? Can our finite mind conceive of the possibility of a universe of individuals? Is that possible; or just a child-like venture?

No doubt in this regard science has lost its focus and complicated things; has made it too difficult; has shunned the realm of faith and trust, and become entangled in the all-consuming web of theory and reason. In order to understand the secret of the universe do we need to take a leap of faith, or can we be instructed, by example and demonstration, regarding the formula of the universe and all therein?

It is certainly true that we must have a clear understanding of *Space* – the basic thing in the physical universe; a true appreciation of *Time* – both an outer reality as well as our way of conceiving things; and *Matter* – that which fills and embodies space. In other words, in order to understand the universe we must first return to basics; not the basics of philosophy, science, or even theology; but the basics of reality. We must, for a time, leave the hallowed halls of academia and the chambers of the research laboratory, and return to a study of the basic building blocks and operating structure of the universe.

What is space; and of what does it consist?

> Space as we know it and live in it and use it consists of three things. We call these three things dimensions, or three directions. We name them generally length, breadth and height.
>
> …When we build a house we build it in three dimensions. No man in the world has ever raised a cabin or a cathedral of either more or less than three dimensions. No thinker would know how to plan a structure of more than three dimensions. Whatever the refinements, the subtleties, of space may be, it is clear that the basic space, the space of common knowledge and experience, is of three dimensions, length, breadth, and height. (Wood, 1936, pp16-17)

But the universe is not just space – empty, void, lacking particular substance. That which fills space and embodies space we call matter.

> We call it matter. But we know now that it is primarily energy. We can agree to call it matter, if by matter we mean that form which energy takes so that we can see it, or hear it, or feel it. We mean all of that which fills and gives outward reality to space….

> What is the nature then of this which occupies space, and makes a visible, audible, tangible universe? Of what does it consist?
>
> … Modern physics and chemistry find, first and basic in matter: – *energy* – vast, unknown, unseen, a primal thing, out of which all things in the physical universe come…. We measure energy by its manifestations, of mass and velocity…. "Mass times the square of the velocity" then is not what energy *is*. It is the way we measure energy.
>
> Second, modern physics and chemistry find, growing out of energy, embodying energy, – *motion*, – that great, unceasing, unresting motion, which fills and which is the physical universe.
>
> Third, they find all those infinite complexities and variations of motion, those varying velocities, into which motion differentiates itself, and which, when they present themselves to us as waves of light, of air; of sound, we recognize as physical phenomena, light, color, sound, heat, cold, hardness, softness, scent, moisture, dryness. They are not dependent upon our recognition or experience of them. They register themselves upon mechanical instruments as readily as upon human senses, showing that they exist apart from human beings and human perceptions. They are probably not different "kinds" of motion. They are probably, as we know that light waves and sound waves are, simply different rates of motion, or different velocities into which motion differentiates itself. We call them phenomena. We think of them in connection with our senses, because that is the way in which we become acquainted with them. But they definitely exist apart from our senses. If we remember that they are in themselves differentiations of motion, which exist apart from us, we may call them, as we know them, *phenomena* [that which touches the senses]. (Wood, 1936, pp18-19)

The universe of our experience is not just comprised of space and matter. The third and final absolute basis of the physical world is that of time.

> When we ask what time is, and how we may resolve it into its component parts, the answer is simple. We need not speculate how far time is an outer reality, and how far it is our way of conceiving things. For whichever it is, or if, as is doubtless the case, time is both an outer reality, and our way of conceiving things, the facts about time are so universal, so clear-cut and so familiar as to leave no practical question at all in any mind. Time, as a matter not of speculation but of simple experience, consists of three great constituents, – past, present and future. We all know them. We all live in them. They include everything, and make this a time universe. (Wood, 1936, p20)

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In many ways Einstein's genius seems more inspired by his own burning, personal obsession to find the essence of "God," than by a desire to advance science. His brilliance was focused upon answering questions dealing with the essence behind all, rather than the substance therein.

The two most elementary ethereal aspects of the universe, space and time, gave Einstein the most difficulty: How do you account for "nothingness" which pervades the universe and has an obvious presence; and how does one reconcile time notions with those of eternity.

Brilliant though he was, none-the-less Einstein was not omniscient. I think it is fair to point out here that, no matter how hard we might try, no individual, nor any pool of knowledge on the human intellectual level can provide us limitless awareness, infinite understanding, and boundless insight.

That is not to say that we should stop inquiring, stop learning, stop praising the majesty of God as seen in and through His Creation. We should use our mental capacities and our natural inquisitiveness to explore and expand our horizons; but in the name of intellectual honesty, we, at the same time, must humble ourselves in order that we might accept and appreciate our own limitations.

Failure to approach inquiries of the profound with a clear understanding of our limitations can only lead to extreme frustration, the type seen in the bizarre discourse offered by Hawking in his book, *A Brief History of Time*. We must recognize that our mental horizon is limited at the threshold of space and time because these are entities which transcend our limited awareness, our finite understanding and our bounded insights.

Einstein experienced this frustration while seeking to understand and account for space and its absolute voidness; and in trying to transcend the notion of time, he chose to embrace Minkowski's four-dimensional model – Space-time.

Did this intellectual fiat advance human knowledge and understanding? Hardly. Instead it confused the picture of reality. It may also have opened the door to an element of the unseen world which could lead to dire consequences for mankind – on the tangible level, the splitting of the atom as an example. Powerful? Yes; and potentially beyond measure. Beneficial? Perhaps; but now the potential for cataclysmic destruction on a global level is placed in Man's hands!

Without the reference point of a Creator modern evolutionary science has no basis, no foundation upon which to build. The shifting sands of hypothesis, speculation, and even theory are inadequate as a starting point from which to explore ultimate things. Man's creativity comes to play here, but only within the context and understanding of a created universe, a created earth, and created life.

Minkowski's concept of Space-time is an attempt to lay the foundations of a unified field theory using an intellectual construct to confront and confound reality. What does Space-time do for space; and what does Space-time do for time?

If we take the liberty of intellectually modifying the operant structure of the universe and tamper with the threefold dimensions of space, who is to say a fourth dimension is sufficient – or even, that no more than two dimensions are necessary? The reality to our human experience is that there are only three dimensions to space, not four and not two – no more and no less; and no earth-bound person has ever experienced otherwise.

What happens to time when *it* is emasculated? By intellectually attaching time to space has it changed anything and does that in any way diminish the functionality of time as we know it? By tampering with the notion of time does it not make science fictional, and give the practitioner a euphoric feeling of power over present, future, and yes, even the past (cf. Deutsch and Lockewood, 1994)?

The concept of Space-time as accepted, has simply opened the door to notions of "imaginary time" leading to some rather bizarre conclusions. And then, does it lead us any closer to eternity – infinite time – and all that *that* would imply?

In the final sense,

> How does one really name something as esoteric and intangible as this mathematical toy of the cosmo-physicist? What exactly is meant by "quantum fluctuations of empty space?" …[The seekers propose] that the universe is created by quantum tunneling from literally nothing into the something we call the universe. Although highly speculative, these models indicate the physicists find themselves turning again to the void and fluctuations therein for their answers." (Morris, 1994, p.b)

In discounting the traditional Judeo-Christian creation accounts skeptics have, none-the-less, been haunted with the age-old questions of origins as well as what holds all together and keeps order in the universe. The human mind has, since time immemorial, constructed intellectual pyramids – well-meaning and well-intended – pyramids of awe, and, all too frequently, of worship. They are intellectual pyramids which are designed to deal with these basic and important age-old questions.

But these carnal pyramids are, of course, constructed upon a foundation of assumptions which are frequently spurious at best, and at worst are composed of the proverbial shifting sands. Yet, because it can be made to sound so rational, so pragmatic, so intellectual, so brilliant, even "beautiful", the temptation is constant to accept the highest notion, the tip of the pyramid, as theory – theory frequently presented as fact.

Quantumness and ethereal notions currently represent the height of intellectual achievement in what some consider the field of science. If one is to abide by that viewpoint and agree with these premises than science, as a discipline, needs to be redefined.

Reality will need to be redefined as well. Objectivity needs to be redefined. Observation needs re-definition. A new comprehension of time must be rendered. Space must be understood anew. Mathematics must be imaginary. Truth must yield to fiction.

Mathematics supersedes reality. Predictability becomes all-empowering. Mental projection is accepted as the norm and not as a variable to be accounted and controlled for in the endeavors of legitimate research.

It is not at all clear that we wish to redefine science in this way. We certainly should not do so without sufficiently examining the consequences that would surely emerge from such "progress."

History and sociology provide valuable insights which are most relevant to our study. Compare/contrast the cultures of the West with those of the East. Consider the matter of life itself within the different cultures, and the different values that are placed on life in each "hemisphere." Consider the differences in social structure, governance, human growth, development and opportunity. Does science play a role in such things?

Consider the role that science has played in our lives under the guidance of Judeo-Christian values. Think of the life and death issues that our Western cultures have struggled with over the past two centuries. Find out what happens when science leaves the moorings of Biblical ethics and enters into the realm of the ethics of the situation; or even worse, diabolical and demagogic manipulations. What has happened in the past; what could happen in the future? What role has science in all of this (cf. Alexander, 1949)?

What is the difference between the notions of ether and that of quantum mechanics? In essence there is no difference. In purpose they are the same. The quest is the same: "What is the mind of God?"

But on a deeper, and perhaps most basic of levels, who is to say that notions of ether and quantum mechanics are wrong? Who is to say that they are right? If our quest in science is to "know the mind of God", we must also realize, in complete humility, that perhaps *He* does not choose to reveal His creative and sustaining power to us.

Perhaps He desires for us to know and understand Him as the God of lovingkindness, judgment, and righteousness (Jeremiah 9:24); to know and understand Him as the Creator and Sustainer of the Universe – the One and Only, the Alpha and the Omega, the Beginning and the End.

Surely we must realize that we *can* know Him, for our finite intellectual capacities have had full exposure to His Word. Within our hearts the truth of God is written, instinctively, for our faith to realize (Romans 1:19). It is given to us the choice to rest on that faith and then, having done so, even as the child grows to an adult, to increase in knowledge and understanding of Him towards the wisdom His Word affords.

Imagine for a moment our circumstances should the great minds, the profound thinkers of the world, in their self-proclaimed wisdom and elitist mentalities, with all their brilliance, gain the mind of God. Not His love and grace, nor His insight and wisdom – only His mind. What would be the result?

Even on basic human terms, what happens when power and personal pride co-mingle? What happens when the creative, intelligent mind forms ideas and notions without the moral constraints of lovingkindness, justice, righteousness, and mercy?

Where do the attributes of lovingkindness, justice, righteousness, grace, and mercy come from? If one knows not the Source and has not himself experienced the attributes, then how is this power to govern the mechanics of the universe to be used?

Power and pride on the human level, gained and used outside the context of God, the One who created and sustains all that exists, have repeatedly been demonstrated as being the most vicious forces imaginable. Can we foresee what would happen in the realms of the ultimate and the infinite?

It would certainly do well for us to consider the mind of Sir Isaac Newton, arguably the greatest thinker of all time, the trusted guide for much of science today, and the intellectual mentor and fellow of Stephen Hawking. Newton's significance to our purpose is "discovered in that natural philosophy which comprised both his theory of the universe and his idea of its divine government" (Brett, 1928, p259). Let us not forget that when Hawking seeks to "know the mind of God," he has no acknowledged longing for a personal knowledge of the ultimate Personage behind all there is.

Indeed, as Carl Sagan notes in the introduction to Hawking's *A Brief History of Time*…, the purpose of the author is to write a book about God; or perhaps about the *absence of God.* "Hawking is attempting, as he explicitly states, to understand the mind of God. And this makes all the more unexpected the conclusion of the effort, at least so far: a universe with no edge in space, no beginning or end in time, and nothing for a Creator to do."

Such a Godless attitude was certainly not in the mind of Newton. Brett (1928) notes that,

> The second edition of *Principia* contains a declaration of faith which may be regarded as the most complete and most exact statement which Newton gave of his beliefs…. "Sir Isaac Newton infers from the structure of the visible world that it is governed by the Almighty and All-wise Being, who rules the world not as its Soul but as its Lord, exercising an absolute sovereignty over the universe, not as over his own body but as over his work [MacLaurin]."

> [Contrast Newton to the New Platonists who were] authors of "the most mystical and unintelligible notions concerning the Deity;" indicating that Newton's good sense had delivered science from all such evils. (p265)

But there are those who seek the scientific intellect of a Newton without the simple, humble attitude which governed his world-view. They should learn to see in Newton's language the confession that knowledge has its limits and beyond those limits there can only be faith that asserts Divine action.

> [Newton, the scientist] affected religious thought by destroying the ancient tradition of the two worlds, celestial and terrestrial, and establishing the idea of law in the Universe as one and the same throughout. This led to a form of thought which at first seemed detrimental to religion but was in fact a process of purification through which men learned that the idea of God and the idea of law are not antagonistic. Since that period the work which Newton began has continued to grow and at the present time [1927] it influences the world; for every day men are learning that worship of the Creator is more than a sabbatic ritual: it is essentially a spirit of discovery and an effort to direct desire by knowledge. Newton so far surpassed the average man in his power to comprehend Nature and give her laws expression that his final convictions are of more than ordinary interest. A restatement of his views will serve to remind this generation that he found in Nature what seemed to him indisputable signs, if not actual proofs, of the skill and wisdom of a Creator. (Brett, 1928, pp271-273)

Our natural realm of existence is not only limited by constraints of space and time, and material substance; but our very ability to express ourselves and relate things profound through means of communication is, in itself, most often abstruse and esoteric.

> The problem is one of imagery and language…. If we try to carry the language and imagery that have grown out of our everyday visible world to the subatomic world, we are in trouble. We peer down into the subatomic world and see little dots on photosensitive plates. Our use of language compels us to think of electrons as tiny little billiard balls. But they are not. They do not act like billiard balls at all. If we apply the logic of billiard ball concepts, we can expect paradoxical results in the subatomic world. But reason itself is not under attack. What we need are new ideas and new images. (Emerson, 1986, p13)

The progress of science has again reached a turning point. The stable foundations of physics have been broken up. The old foundations of scientific thought are largely unintelligible in todays milieu.

> Time, space, matter, material, ether, electricity, mechanism, organism, configuration, structure, pattern, function, all require reinvestigation. What is the sense of talking about a mechanical explanation when you do not know what you mean by mechanics? (Whitehead, 1925/1962, p23)

There *is* something beyond the realm of normal human experience which clearly exists but cannot be measured. It isn't ether, and it can't be fathomed by quantum theory. Perhaps some old "images" can provide a glimpse into a more broadened reality.

The Judeo-Christian Scriptures are filled with *supernatural* lessons – lessons clearly stated but profound in their implications. Two will suffice for purposes of illustration.

The Old Testament records an account of the prophet Elisha being pursued by the king of Syria.

> One night the king of Syria sent a great army with many chariots and horses to surround the city. When the prophet's servant got up early the next morning and went outside, there were troops, horses, and chariots everywhere.
>
> "Alas, my master, what shall we do now?" he cried out to Elisha. "Don't be afraid!" Elisha told him. "For our army is bigger than theirs!"

> Then Elisha prayed, "Lord, open his eyes and let him see!" And the Lord opened the young man's eyes so that he could see horses of fire and chariots of fire everywhere upon the mountain! (2 Kings 6: 14-17, *Living Bible*)

The New Testament is filled with the miracles of Christ and the supernatural events surrounding His apostles. In his inspired writings the Apostle Paul instructed believers concerning a world beyond the normal human senses:

> For we are not fighting against people made of flesh and blood, but against persons without bodies – the evil rulers of the unseen world, those mighty satanic beings and great evil princes of *darkness* who rule this world; and against huge numbers of wicked spirits in the spirit world. (Ephesians 6:12, *Living Bible*, emphasis added)

Could it be that what *ether* represents and what quantum mechanics is actually exploring is this realm of existence? That Man's self-aggrandizing quest for light, and the essence that contains it could, in fact, be the ultimate darkness that Hawking finds, and proceeds to describe so eloquently. Is Hawking and quantum theory on the verge of discovering the *absence of time* and the *absence of light* – more clearly described as eternal darkness?

Consider for a moment our earthly existence, residing on a planet fixed in *space*, blessed and nourished by *light*, bound by *gravity*, and limited by *time*. In essence, this represents the natural physical medium – SPACE, LIGHT, GRAVITY, TIME.

Contrast this existence with that of a black hole – "a region of space-time from which nothing, not even light, can escape, because gravity is so strong" (Hawking, 1988, p183) – *infinitely dense* SPACE, *absolute* GRAVITY, *absence* of TIME, *absence* of LIGHT – *infinite and absolutely eternal darkness*!

Throughout the 1970's Hawking focused his studies on black holes, but, "…in 1981 my interest in questions about the origin and fate of the universe was reawakened when I attended a conference on cosmology organized by the Jesuits in the Vatican." (1988, pp115-116)

With his expertise relating to black holes, coupled with his interest in the origin and fate of the universe, Hawking has discovered something; and that something is truly foreboding. It is likely that Hawking has unwarily exposed the realm of Hell, and that quantum theory is unwittingly exploring it! Here is how he describes it:

> The event horizon, the boundary of the region of space-time from which it is not possible to escape, acts rather like a one-way membrane around the black hole: objects, such as unwary astronauts, can fall through the event horizon into the black hole, but nothing can ever get out of the black hole through the event horizon. One could well say of the event horizon what the poet Dante said of the entrance to Hell: "All hope abandon, ye who enter here." Anything or anyone who falls through the event horizon will soon reach the region of infinite density and the end of time. (Hawking, 1988, p89)

PART THREE

EVOLUTION AND ITS SOCIAL IMPLICATIONS

IS IT REASONABLE?

EVOLUTION IN EDUCATION AND SOCIETY

MYTHOLOGY

OLD vs YOUNG EARTH –
IS THERE A MIDDLE GROUND?

CONCLUSION

IS IT REASONABLE?

In 1990, following the first draft of *Evolution As Myth*..., I decided to take to heart the directives of the California State Board of Education and began to teach "creationism" within the context of my 8th-grade social studies/language arts classes. Little did I realize what a learning experience the process would be for me as I endeavored to gather the necessary resources in order to plan lessons and formulate a curriculum which my young students could explore. Although the state "encourages" the teaching of origins and creation, it does little, if anything, to facilitate such instruction.

As the course unit developed I increasingly felt that the way to help students the most when it came to dealing with the issues of origins was not to teach about creationism *per se*, but instead to help these young minds to analyze critically the information they are presented, to recognize dogmatic statements, to challenge indoctrination, and to seek to find both sides of each proposition on an issue.

It is my conviction that there is no better example available to help students develop these necessary academic skills than the doctrine of evolutionary science as presented in textbooks, supplimentary materials, and by some dogmatic teachers.

Although dogmatism is evident and obvious throughout 7th and 8th-grade materials it is not a significant feature of the curriculum in the same fashion as found within the high school biology class. Biology is the most controversial of science subjects if evolution is presented dogmatically since it is here where the origins of life are highlighted and the context for life evolving from lower forms is established.

Earlier in this work I cited an example from the high school Biology textbook, *Biological Science: An Ecological Approach*, 6th Ed., (1987), and handled it within the context of the speculative nature of Darwinian evolution. But there is another aspect of that passage which needs further exploration; and in doing so the student is encouraged to enter into the cherished educational mode of *critical thinking*.

The authors of *Biological Science*... asked at the onset of their remarkable passage: "Are [these] speculations of origins reasonable" (p349)?

In other words, realizing that the notion of the evolution of origins cannot be proven by scientific means it then becomes incumbent upon each individual to examine the information presented to them in light of a formula of "reasonableness". If, after considering the speculations upon which organic evolution is based, one finds it *reasonable* to conclude that life formed spontaneously from non-life; that "…cell ancestors formed a membrane that separated them from their external world;… [that these speculated cells then] began to grow by using compounds in the surrounding environment for spare parts and energy;… [and that finally] they evolved a process of reproduction, producing others like themselves…" (p349); then for that person argument ceases and faith begins.

If, on the opposite hand, one reviews the teleological accounts of intelligent design to the universe, the earth, and life; and determines these explanations to be *reasonable* then, in like fashion, arguments end and faith in God as Creator finds fallow ground in which to germinate. The key word is *REASONABLE*.

Let us consider the broader implications of this "reasonable" doctrine as it applies to the indoctrinating of students as well as the social outcomes from the dogmatic treatments of evolution.

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The authors of the California *Science Framework* have found it necessary to address *reasonableness* in their work due to the highly controversial way that they treat the disciplines of science, especially the biological sciences:

> At times some students may insist that certain conclusions of science [evolutionary dogma] cannot be true because of certain *religious or philosophical beliefs* that they hold. This is a difficult problem for these students and their families, and such difficulties should be acknowledged and respected. It is appropriate for a teacher to express in this regard, "I understand that you may have personal reservations about accepting this scientific evidence, but it is scientific knowledge about which there is no *reasonable* doubt among scientists in this field, and it is my responsibility to teach it because it is part of our common intellectual heritage. (p20, *italics* added)

Notice that the *Framework* authors have established the context of the discussion to be that of "certain religious or philosophical beliefs… within our common intellectual heritage;" and assuming that scientists subscribe to personal

tenets of faith, what has just been established, by the authority of "science", is that beliefs to the contrary are *unreasonable*; and furthermore, those students who hold such beliefs are being unreasonable as well. In itself this is a shocking statement; within the field of education it is pedagogically blasphemous!

Consider the broader implications these speculations have as it relates to the importance of human beings, recalling that evolution would have us believe that we are mere animals, evolved to a higher order solely on our ability to survive. Thomas Harris (1967), author of the pop psychology manual of the 70's, *I'm Ok – You're Ok*, provides this gem:

> I would like to suggest that a *reasonable* approximation of this objective moral order [situational ethics], or of ultimate truth is that persons are important in that they are all bound together in a universal relatedness which transcends their own personal existence. Is this a *reasonable* postulate? The most helpful analytic concept in attempting to answer this question is the concept of comparative difficulties. It is difficult to believe that persons are important, and it is also difficult to believe that they are not…. *We cannot prove they are important. We have only the faith to believe they are, because of the greater difficulty of believing they are not.* (p254, emphasis added)

Did you catch the word *reasonable*, twice mentioned? It doesn't take a student of history to recall that less than three decades prior to the publishing of Harris' book there existed a nation of people who had been led to believe that certain groups of persons were less important then themselves; and indeed, not worthy to live.

It is frightening to realize that Adolph Hitler's thesis on anti-Semitism held that there were two types to consider: (1)Anti-Semitism of emotion; and (2)Anti-Semitism of reason. Hitler preferred and focused attention on the later, feeling that *reason*, the German *Vernunft*, was logically more consistent. "He wanted this steadiness for the attainment of his goal, the ambiguous, yet total removal, disappearance, or elimination of the Jews [whom he considered valueless and worthless] (Hilberg, 1992, p5).

Do you wonder that this could happen again, in a society that believes humans are animals of a higher order; and that the only inherent values persons possess rest on the comparative difficulty of believing humans are not valuable? Would the philosophy of Utilitarianism – which Darwin believed in and vigorously promoted with this theory (1859/1963, pp172-178); and which Friedrich Nietzsche used in developing his notions of the Supermen whose "will to power" would set them off from the "herd" of inferior humanity; and which the Nazis included in their doctrines of racial and national superiority; and which Hitler subsequently used to exterminate those he considered to be inferior – would these bizarre notions be at home in this discussion?

A society which bases its values on dogmatic evolution cannot long be safe for certain persons. Could it be *reasonable* to assume that there are those in our society who would actually teach, and later encourage us to destroy ourselves?

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Davis and Kenyon (1993), the authors of the supplimentary biology textbook, *Of Pandas and People: The Central Question of Biological Origins*, encourage students of science to evaluate the plausibility [is it reasonable?] of origins theories in two ways:

> First, we have to ask if there is convincing similarity between present and past causes. That is what Darwin did with the artificial selection used by breeders to get improved stock [micro-evolution]. He said it was analogous to natural selection the cause in the past for species transformation. When examples of natural selection in the present were also presented, it merely strengthened the case.
>
> The second way to check the plausibility of an origins theory is to consider circumstantial evidence. In a murder case with no eyewitnesses a lawyer must rely on the strength of circumstantial evidence. For example, Smith is accused of shooting Jones with a .38 revolver. Smith's fingerprints are found on a .38 revolver beside Jones' body. Smith had left little doubt about his dislike for Jones the night before the murder. The case built on circumstantial evidence is not proof, though it may sound plausible and incriminating. Even so, the jury's belief that Smith is guilty may be more a product of their subjective feelings than they realize…. (p92)

There is no doubt that change occurs on a micro-evolutionary level as demonstrated by breeders for centuries to improve their stock; and in fact many species are capable of a considerable degree of natural change. These small-scale genetic changes are observable in all organisms. However, it is a well established fact, known for centuries, that there are distinct limits beyond which species cannot change, thereby casting a pall on Darwin's general theory of macro-evolution (Denton, 1986, pp64-65).

The issue then, involving the origin of life (macro-evolution), must be brought to trial in the court of *Reasonableness*; what is plausibly to be believed, and what is to be rejected as non-science.

It is certainly not uncommon to find textbooks and teachers of science spouting Darwinian macro-evolution as factual and beyond the realm of debate. Although increasingly viewed as the Dutch boy with his finger in the dike, these dogmatists can hold considerable sway over the impressionable and typical secondary student of science.

Those who would indoctrinate students in the "fact" of evolution (often found attempting to equate the notion of evolution as factual along side the law of gravity) are generally persons insecure in their own fundamental beliefs; and are usually found to be unable or unwilling to articulate their beliefs and/or subject them to discussion or debate. They seek pat answers, cloaking them in scientific jargon, which they feel forecloses other alternatives.

This attitude is, of course, the antithesis of the true goals of education where students are to be introduced to controversy, taught to think critically, guided in seeking the deeper meaning of things; and, by all means, taught how to find the background assumptions upon which statements of "fact" (in science, in history, in math, etc.) are based.

This historical detective work is what we find lacking in so much of formal education today.

> As philosopher of biology Elliot Sober points out, there may be any number of plausible explanations – or "past histories" – that can account for the same evidence. Sober's observation recalls the insightful warning of fictional detective Sherlock Holmes. "Circumstantial evidence is a very tricky thing," said Holmes. "It may seem to point very straight to one thing, but if you shift your point of view a little, you may find it pointing in an equally uncompromising manner to something different." (E. Sober, 1988, *Reconstructing the Past*, Cambridge, Mass., MIT Press, pp4-5; cited in Hartwig, M.D., and Meyer, S.C., 1993)

It may well be the failure to understand the basic assumptions upon which Darwinism is based that current science is most vulnerable. And here, either through lack of initiative, lack of understanding, training, etc.; or a fear of having to compromise long-held and cherished beliefs pertaining to the past, the present, the future, the purpose of life and its meaning, that one encounters the most rigidly entrenched attitudes within the educational communities. Far too often students enter adulthood as persons who do not know what they are assuming because no other way of putting things has ever been allowed to occur to them.

As zoologist Thomas Kemp (1985) warns:

> All attempts to understand the diversity of organisms rely upon empirically untestable assumptions either about evolution or about natural patterns. There is nothing wrong with making assumptions or seeking to justify them of course. It is the very stuff of science. *What is unforgivable is to forget that they are assumptions and behave as if they were known certainties when they are no such thing.* (p153, italics mine)

Hartwig and Meyer (1993) go on to note:

> …[C]alling common descent a fact only closes off debate and blurs the distinction between fact and inference. That in turn, makes us particularly vulnerable to the illusion that we know more than we really do. In the preface to his best-selling volume, *The Discoverers*, historian Daniel Boorstin tells the reader:
>
> > The obstacles to discovery – the illusions of knowledge – are also part of our story. Only against the forgotten backdrop of the received common sense and myths of their time can we begin to sense the courage, the rashness, the heroic and imaginative thrusts of the great discoverers. They had to battle against the current "facts" and dogmas of the learned. (p156)

Indeed, this is precisely the dilemma science education finds itself in today: Are students to be indoctrinated in the "facts" of unfathomable and unimaginable spans of time, in Darwinism as commonly portrayed, in the notions of a naturalistic, non-intelligent and purposeless, and impersonal universe; or should students be encouraged and equipped to be courageous, challenging, bold and adventurous; imaginative in their discoveries and assured in the beliefs which they, themselves, learn to deem reasonable?

EVOLUTION IN EDUCATION AND SOCIETY

Dogmatic evolution is not simply a phenomena of the science laboratory, the biology or earth science textbook, or the public school curriculum; it is a topic of continuing and constant occurrence within the fabric of our society; in fact, to some it is the religion upon which they rest their beliefs and to which they look to for their hope.

The doctrine of evolution has become institutionalized within our worldview to such an extent that to even question its premises borders on intellectual heresy. The elitist inquisition of this century would have us all believe that our origins stem from accidental events which must be discovered for our continued evolution, and indeed, our ultimate survival. Within that contextual understanding I suggest the following social dynamics which bear the imprint of Darwinian evolution.

Pure science is morally neutral; however the delineation of its purpose and the interpretations of its result can be, and are, morally directive. This realization heightens the importance of the moral underpinnings upon which a highly scientifically-orientated society rests. A society based upon absolute standards and fundamental, universal morals will give a cohesive direction to the furtherance and use of science as a tool of development. If the societal values are good, wholesome, and constructive, then the population will benefit greatly from the work of science. If fundamental societal values are bent towards evil, destruction, and are factionalistic, then the population will suffer greatly under the burden.

We live in an age of moral neutrality, an age where values and standards are relative and up to the individual to determine: "If it feels good do it," has an all too common ring. We live in an age where the ethics of the situation govern, and where the *end* justifies the *means*. In our society if something is legal it is acceptable, and if it is possible it is *good*. In such a moral vacuum science can easily be seen as a god which will lead us to Utopia, even as it could be used by the despot to incite and to destroy.

Charles Darwin, the esteemed father of the evolutionary doctrine, did not name his first book *The Origin of Species* as is commonly thought, and generally portrayed today; but, in fact, the full title to his treatise is: *The Origin of Species By Means of Natural Selection, Or the Preservation of Favored Races in the Struggle For Life.* Avoidance of this lengthy title today is for reasons other than brevity alone.

In this work Darwin endeavored to explain his view of how life originated and subsequently evolved over unimaginably vast amounts of time. But he was also attempting to show a method by which this process could occur; and then went on to indicate that there are "favored races" which possess an inherent fitness to survive in the struggle for life. When one looks at Darwin's book in the context of its full title and meaning, it becomes possible to discern the author's philosophy of life. It is this philosophy that has become the *Weltbild* (world-view) of the scientific community during the past two centuries.

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The effect of *The Origin of Species*... was immediate and widespread. The book upset many established patterns of thought, contradicting firmly held religious tenets, caused a schism within the scientific community, brought into focus the concept that humans are one species among many that had evolved from a more primitive one, and set in motion a social movement which was to have drastic and far-reaching consequences (cf. Eiseley, 1958/1961, pp10-16).

Those scientists who saw Darwin's model as fundamental to their own pre-conceived notions of origins pursued research to substantiate his ideas. But Darwin's model spread to other disciplines; and as it impacted society it became known as *Social Darwinism* – the playing-out of his "survival-of-the-fittest" theme. Taylor (1991) notes that,

> The word "races" in [Darwin's] subtitle led to many social inequities between the leaders and the led and between ethnic groups, causing much class distinction, all justified on the basis of the new-found biological science. Darwin had used the word "race" to mean variants within the species, but this eventually came to include man and raised the question, Whom did nature wish to preserve? White man or black? Christian or Jew? Protestant or Catholic? *The possibilities for subdivision were limited only by man's actual prejudices*. This was the basis for what became known as Social Darwinism, in which the class structure was assumed to be fixed by the laws of nature. It was thus biologically impossible, for example, for a laborer's son ever to aspire to any better station in life…. (p403, *italics* added)

A complete understanding of Social Darwinism can be realized by studying the trend of European thought which led to, and then grew-out of his ideas. Earlier humanistic naturalists, and later Social Darwinists argued that societies – like organisms – evolved by a natural process through which the most fit members survived or were most successful. The logical consequence of such an argument is that the most successful social classes were supposedly composed of people who were biologically superior.

Eiseley (1958/1961) diffidently records the connections between Francis Bacon and then Social Darwinists, with *Origins*... providing the essential link. It was Bacon who rather innocently proposed the idea that peoples of the North tended to dominate those in the southern areas of the planet. Darwin advanced (and institutionalized) this notion by consistently insisting that all life forms (including by implication, Man) had been advanced through natural selection and competition to a higher stage of perfection, thereby giving natural legitimacy to the domination of certain advancing forms over others. Such irresponsible speculating opened the floodgates of racist sentiment which had seethed for centuries in the collective mind of intellectual Europe (pp10-11).

Early forms of racial thinking (a race-consciousness) can be found in the "biogenetic law" of evolutionist Ernest Haeckel. Haeckel conceptualized that "animals are merely fetal stages of man". This concept when applied to Man, according to Eiseley, "…can be found reflected in some of the racial thinking even of post-Darwinian days in which it is assumed that the Caucasian, as the highest type of man, reflects in embryonic or infantile stages the other lower races" (p96).

Haeckel was a German biologist and philosopher, and as Arendt (1951/1967) notes, "[o]rganic naturalistic definitions of peoples are an outstanding characteristic of German ideologies and German historism. These notions, in turn,… prepared the way for race-thinking in Germany." (p170)

Just six years before Darwin published *Origins*,... the Frenchman Comte Joseph-Arthur de Gobineau formulated his racial notions, and his treatise *Essai sur l'Inegalite des Races Humaines* became a standard work for race theories in history.

> History shows that all civilization derives from the White race, that none can exist without its help, and that a society is great and brilliant only as far as it preserves the blood of the noble group that created it. (Gobineau, cited in Durant, W. and A., 1968, p25)

Gobineau, possessing classical liberal optimism was seeking an elite class of politicos to replace the aristocracy in post-Napoleonic France; and in so doing proposed the "survival of the fittest" theme. Instead of princes, Gobineau envisioned a "race of princes," the Aryans, who he said were in danger of being submerged by the lower non-Aryan classes through democracy (Arendt, 1951/1967, p173).

Arendt notes that once the Bible was challenged in Europe as being a "book of pious lies" the ideas emanating from the times were a tremendous stimulus to Darwin as he formulated his notions: "Darwin was especially strengthened by the fact that [these ideas – polygenism] followed the path of the old might-right doctrine…. Darwinism met with such overwhelming success because it provided, on the basis of inheritance, the ideological weapons for race as well as class rule and could be used for, as well as against, race discrimination." (p178)

The Austrian sociologist Ludwig Gumplowicz formed the most radical proposals from Darwin's work and published these in his *Der Rassenkampf* (The Racial Struggle, 1883). Gumplowicz formulated a universal law to the effect that social evolution was a product of group conflict.

There is a good deal of evidence that the young Adolph Hitler was familiar with these blatant racist sources, and incorporated this theme in his own work, *Mein Kampf* (*My Struggle*, 1926), considered the "bible" of the Nazi

movement. But even at that, how is it possible that a leader such as Hitler could sway (and enslave) millions of intelligent German citizens to his cause (cf. Hilberg, 1992, pp4-19)?

In Nazi Germany the theory of biological evolution was taught in schools as the principle underlying science, history, and the social sciences. In only one generation's time, Germany succeeded in breaking away from the Judeo-Christian ideas of the past; and with these the tenet of the unity and equality of all men, based upon common descent from one original set of parents (Arendt, 1951/1967, p176).

German children were taught that the definition of "right and wrong" could evolve and change according to the circumstances. The German nation was brain-washed into thinking that there is a superior group of people who should rise to power and rule the world. Through the schools of Germany, the society's values were "clarified," and children were taught to do away with people who were less fit in order to help those "more fit" to survive. German society learned that there is a "Final Solution."

The Nazi Holocaust essentially began when the German people accepted the notion that there was such a thing as life *unworthy* to be lived. The Nazis refined the notion by depersonalizing victims and nurturing the fires of racial hatred.

By fanning the fires of bigotry and depersonalizing humans with tattooed numbers, the Nazis diabolically applied substance to symbolism and rhetoric, and ruthlessly and systematically carried forth their extermination policies with impunity. The conscience of the German people had been seared, and the movement towards utilitarian death ran its rapid course.

Charles Darwin established a theory that became not only the focus of biology, but also a philosophy of life. As Macbeth (1971) so eloquently puts it:

> What Darwin did was to make the phrase [struggle for existence] a familiar shibboleth, assign a creative role to the process, and praise it as virtuous. In a way… he asserted that it favored the welfare of the right sorts. (p56)

It is certainly accurate to suggest, as did Sir Arthur Keith (*Evolution and Ethics*, 1947), that the Europe of the early 20th-century was well prepared for a practical application of a struggle for existence based on the concept of favored races. Keith claims that Hitler consciously sought to make the practice of Germany conform to the theory of evolution (p230).

> The leader of Germany is an evolutionist, not only in theory, but, as millions know to their cost, in the rigor of its practice. For him, the national "front" of Europe is also the evolutionary "front;" he regards himself, and is regarded, as the incarnation of the will of Germany, the purpose of that will being to guide the evolutionary destiny of its people (p10).[2]

Of course, the rest is history; and there-in lies a dilemma. The problem in a rapidly changing global environment like ours is that the repetitive nature of history is accelerated; and with the abandonment of *HisStory* the evils and ugliness of past days are played-out anew without any understanding as to the cause, or the direction that "progress" is taking us. As Santayana has noted, "Those who cannot remember the past are condemned to repeat it".

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Evolutionary ideas impact education on two major fronts: the science classroom, and historical revisionism. The way in which evolution is dogmatically introduced and rigidly upheld within public schools is well documented and generally understood. However, little has been said pertaining to attempts (mostly successful) at revising the history

[2] Those interested in perusing the effects that science gone awry can have upon a society should obtain the article "Medical Science Under Dictatorship" by Leo Alexander, M.D., in the July 14, 1949 issue of *The New England Journal of Medicine*, pp39-47 (http://www.chninternational.com/leo_alexander_.htm).

of mankind from ages past to the present.

Of course we know how the whole idea of life's origins has been rewritten within the science context, and this has filtered into the other disciplines as well. But is it possible for the evolutionary bias to creep into the textbook of an eighth-grade United States history class?

The opening lines of our nation's *Declaration of Independence* read:

> We hold these truths to be self-evident: That all men are created equal, that they are endowed by their Creator with certain unalienable rights;…

It is perfectly clear that our founding fathers saw in their cause a need to declare their most fundamental beliefs; and that basic to these beliefs, and "self-evident" to them, was the truth of divine creation. In this simple but profound document the authors were able to look through the eyes of the Creator and see that all humans are equal in His sight.

In the most recent edition of our eighth-grade United States History textbook the authors have taken it upon themselves to interpret what the framers meant by their declaration:

> The opening part of the Declaration is very famous. It says that <u>all people are equal</u> (*A More Perfect Union*, Houghton Mifflin, 1991, p656, emphasis added).

In one broad sweep, the *self-evident* truth of creation has been removed from the student's eyes; and you can be sure, their mind as well. What has been changed by removing the Creator from public education? What has been the result of replacing a false notion, a humanistic conundrum – "all people are equal," – into the history curriculum?

There is a distinct philosophical difference between a Creator who views all persons as equal, and someone's idea that all people are equal. The founding fathers knew this distinction and apparently realized that if this nation was to be formed towards an egalitarian purpose that it could only occur as the population was led to view mankind through the eyes of the Creator.

Think of what it would be like if we *were* all equal. If we all had the mind of an Einstein, what would we have? What sort of a game would it be if everyone in the stadium, players and fans alike, had the same throwing arm and talent of the 49er's Joe Montana? Would any of us attend symphonic concerts if we all had the potential to master the violin as Itzhak Perlmann has done? There would be no further need (Oh, hasten the day!) for the Mr. and Miss Universe pageants if we were all of equal physical beauty.

It is our uniqueness, our individuality which sets our course in life; and yet the God of the universe, our Creator sees us all as uniquely equal. Our assets and liabilities, our strengths and weaknesses, our talents or ineptness, all of these have no bearing whatsoever in the way we are viewed by the Creator. And we can learn to view each other in this way too; but only to the extent that we recognize the self-evident truth of creation. For this reason, Santayana (1953) could say, "…creation is regarded as a work of love, and the power that brought order out of chaos is called intelligence." (p82)

It is good that Dr. Martin Luther King Jr. was not exposed to the revisionist textbooks which our youth must confront today. For if he studied American history as currently proposed he most likely would never have delivered these eloquent words:

> One of the first things we notice in this [American] dream is an amazing universalism. It does not say some men [are created] equal, but it says all men. It does not say all white men, but it says all men, which includes black men. It does not say all Gentiles, but it says all men, which includes Jews. It does not say all Protestants, but it says all men, which includes Catholics…. It says that each individual has certain basic rights that are neither conferred by nor derived from the state. To discover where they come from it is necessary to move back behind the dim mist of eternity, for they are God-given. Very seldom, if ever, in the history of the world has a socio-political document expressed in such profoundly eloquent and unequivocal language the dignity and the worth of the human personality. The American dream reminds us that every man is heir to the legacy of worthiness. (cited in Bennett, 1992, p187)

Were it not for "*created* equal", and "their *Creator*" included in the foundation document of our nation, King could never have spoken these words. He very wisely recognized something which modern historical revisionists have

sorely neglected: "Very seldom, if ever, in the history of the world has a socio-political document expressed in such profoundly eloquent and unequivocal language the dignity and the worth of the human personality. The American dream reminds us that every man is heir to the legacy of worthiness."

In the same vein and in the same country, subscribing to the same document – in another, more turbulent time – the abolitionist writer, Harriet Beecher Stowe, could reflect as the white master, St. Clare, is dying: "[He] reached out and took [Tom's] hand, looking earnestly at him, but saying nothing. He closed his eyes, but still retained his hold; for, in the gates of eternity, the black hand and the white hold each other with an equal clasp (Stowe, 1852, p391).

Our educational institutions today, and especially the science classrooms, are caught in the vice of evolutionary dogmatism.

Consider for a moment the student who comes from a Bible-believing home, who attends a church where the Bible is taught as literal, historical truth; and who now is exposed to the "truths" of evolution. At church and at home the student is taught that he is a uniquely created individual, in the image of God; and that the world in which he lives is less than 10,000 years old. At school the student hears that life has evolved over billions of years and that he is actually the result of an accident of nature.

If the student should raise the issue of creation within the science class he will be told to discuss those issues with his parents or pastor. The pastor is justifiably tempted to criticize science as atheistic and a corrupting influence in the life of his charge. The parents are placed in the position of having to confront the school in an uninvited manner. The student is left with a classic case of cognitive dissonance which cannot be resolved in the classroom.

In other words, to the most basic of questions, he is left with contradicting views which cannot be explored because the school is not open to all viewpoints. What public school students are learning in science classrooms in regards to origins, as the *Science Framework for California…* would have it, is that right thinking comes from right-minded authority that can be questioned only on pain of being ostracized and considered a deviant with unreasonable ideas (cf. p20, and xi)!

This approach to education is grossly unfair and detrimental to the student's cognitive processing. Those within education who, in their own inadequacies and perverse viewpoints, would support the call and immense pressure to indoctrinate young people in evolutionary science are guilty of pedagogic malfeasance. To teach evolution as fact without examining its undergirding presuppositions, premises, and assumptions, is to approach education from a dogmatic position.

> To understand the problem, it is necessary to examine the nature of thought. All thinking rests on pre-theoretical presuppositions, religious commitments in essence, which condition the nature of thinking. These pre-theoretical presuppositions determine which experiences out of all man's sense impressions shall be regarded as *facts*. Thus, before there are facts, there are already *presuppositions*, which lead to various *beliefs and theories*, which determine what shall be regarded as *factuality*. In other words, before there is a fact, there is a faith about facts. As Van Til has said, "facts and interpretations of facts cannot be separated. It is impossible even to discuss any particular fact except in relation to some universal. The real question about facts is, therefore, what kind of universal can give the best account of the facts. Or rather, the real question is which universal can state or give meaning to any fact." There is thus no such thing as uninterpreted factuality…. To believe that "brute facts" can add up to knowledge is to believe that zeros can add up to something more than zero. (Rushdoony, 1967, pp86-87)

Not only has this lack of understanding of the cognitive processes and its subsequent self-serving attitude led to a great deal of animosity between the school and the community; but it has caused an incalculable number of young people over the years to needlessly abandon the science disciplines in order to preserve their most fundamental faith, to the detriment of both the disciplines and the society as a whole.

And what of the faith of a society? How are people to interact within a world-view which places its faith in a system that highlights the differences of persons without having the benefit of a transcendent unifying context? When it comes to the human species, any theory which would emphasize developmental (evolutionary) human differences meets the classical definition of a racist system. That is especially so when that system presents certain races as being naturally "preferred" in a hypothetical struggle for life.

A classical racist emphasizes the differences of man as a process of step-development from *lower*, with some remaining, to *higher*, with some destined to progress higher still.

A creationist seeks instead, a higher viewpoint, established on the universal principle that all men are created equal; while realizing full well that "Man looketh on the outward appearance, but God looketh upon the heart." Is it significant that Darwin should have named his second testament *The Descent of Man,...* where two meanings could be alluded, and where certainly he could have found a more encouraging, and less morbid expression (cf. Eiseley, 1958/1961, p39)?

Charles Darwin defined and popularized the context, sowing the seeds of an eventual harvest of racism that has marked the course of human history over the past century and a-half. To miss this point as one attempts to deal with social maladies, such as racism, is to leave home on a long trip with an empty tank.

Haller's *Outcasts From Evolution: Scientific Attitudes of Racial Inferiority 1859-1900* is one of a number of important books documenting what has long been suspected: The ingrained, firm, and almost unanimous racism of North American men of science during the nineteenth and into the twentieth century (cf. Taylor, 1984/1991, pp260,456).

Haller (1971) asserts that anthropology, medicine, psychology, and sociology became instruments which "verified" theories of race extinction and helped to rationalize the politics of disfranchisement and segregation. "To see racial prejudices in their scientific robes," Haller points out, "is to understand why, despite later conceptual changes in evolution and methodology, attitudes of racial inferiority have continued to plague western culture." (p.xi)

It is incumbent for the reader to understand that race-consciousness must exist within a social-scientific lexicon if the notion of evolution is to be held as a viable doctrine.

> Considering Negroes outcasts from the evolutionary struggle, scientists described them as a race 'come out of the depths of centuries,' existing on the fringe of Caucasian race achievement and slowly succumbing to natural race extinction…. In this period (1859 to 1900) scientific ideas quickly entered the popular culture through the publications of Herbert Spencer, Joseph Fisk, W.J. McGee, Edward D. Cope, Frederick Hoffman, Joseph LeConte, Nathaniel Shaler, and others….
>
> In seeking to acquaint society with the "truths" of evolution, scientists and social scientists helped to create and to justify subsequent institutional racism in America…. (Haller, 1971, fly-leaf)

Critics abound who are quick to name so-called right-wing political, and Christian fundamentalist and conservative groups and persons for wanting to force their values and standards of moral conduct on an unwilling and unreceptive population. Attempts to establish and maintain rules of order, civility, and decency are maligned and vilified as violations of individual freedoms leading to the quintessential *pursuit of happiness* as recognized in the Declaration of our founding fathers.

It is as if having a concern for society and societal good should, from henceforth no longer be the focus of the conservative and the Christian, but, instead, left to the hands of a liberal elite – those who would organize a society around social mandates and enforced compliance. This "progressive" mood fails to realize that progress towards an unworthy goal is not *progress* at all, but instead lays the seeds for the cultural degeneracy which so plagues our society today.

Moral relativism, situational ethics, and "me-first" hedonism have produced what one author has called the dawning of the ERA - GAY - AIDS generation. *Demands* have been turned into *rights*; *sodomy* has become *gay*; *right* is now *wrong*; and *pleasure* equals *pain*. Our modern culture has even spawned a medical doctor who makes it his practice to help people commit suicide; and then goes on to promote the idea that death can be made to work for the betterment of society! This doctor coins a new term, "Medicide" – Doctor-killing – and then writes a book which is subtitled *The Goodness of Planned Death*! Shades of *The Final Solution*?

Now exposed to the full force of ignorance and arrogance, of misguided efforts at social engineering, and of open rebellion against the God of Creation, we are left with a society driven by three fundamental forces: Drugs, violence, and perverted sexual behavior. Most often we find all three combined and splashed across the screens in the neighborhood cinema and on our TV's; while we have become anesthetized to the forebodings of a news-media which informs, but fails to understand, and can offer no solutions.

Consider the whole area of human behavior, and in particular, sexual instinct and impulse. Our present culture places a great emphasis on sexual behavior, granting it as having far more than procreative merit. How does the notion of evolution play into this cultural scenario?

In an address challenging the American conscience, former Education Secretary William Bennett made a profound statement guaranteed to capture the ear and imagination of this public school teacher:

> Our schools should treat our young people as gifts of God, not as subjects of social experimentation or as young animals in heat. (Nomination address given at the Republican National Convention, August 19, 1992)

Those who have rejected the concept of the Creator in favor of notions of evolutionary origins have a difficult time with a statement like Bennett's. To them the human being is little more than a higher-order animal; consequently it is expected that this animal will behave as the animal should. In other words, instincts and impulses govern the behavioral urges, and values and morals are relegated to a subjective world of relativism – If it feels good, do it – again, is the fitting motto here.

Animals do not function in a moral sense, and we do not expect them to do so. We would look with alarm at the person who finds it necessary to promote sexual fidelity among the neighborhood dog population since such notions are moral in nature and are contrary to the dog's instincts.

But humans are designed and should be prepared to look beyond instinct and rely upon moral codes to help establish the parameters for living and the carrying on of social intercourse. These parameters give guidance for the individual to learn and embody a discipline of self so necessary for human growth and development. Anything less and we soon find people behaving like animals – unfortunately, all to often, worse than animals.

We would certainly do well to, at the least, teach our youth as the Durants (1968) suggested more than a generation ago:

> A youth boiling with hormones will wonder why he should not give full freedom to his sexual desires; and if he is unchecked by custom, morals, or laws, he may ruin his life before he matures sufficiently to understand that sex is a river of fire that must be banked and cooled by a 100 restraints if it is not to consume in chaos both the individual and the group. (pp35-36)

Moral codes give a transcendence to the human experience and often encourage a desire to relate to the Creator. To the extent that the Creator is negated and Man is viewed as animal, a degenerative process occurs which robs Man of his dignity, frequently his life, and always his potential.

When you consider the morals and values of a society, consider this:

> Secular Humanism, with its foundation firmly anchored in evolutionary doctrine, places Man but slightly higher than the animal. Only the Bible views Man as a little lower than the angels (Psalms 8:5).

And the Psalmist would go on to tell us why today we live in a world filled with folly: "That man is a fool who says to himself, 'There is no God!'"

MYTHOLOGY

Mythology is a strange and often misunderstood study. The term itself can be misleading because a myth is often thought of as a story that is not true. In the philosophical disciplines, however, the term *myth* does not refer to the historical truth or falsity of a narrative, but to the way a story expresses the basic worldview of a society. The myth tells what the world and humanity are like and why they exist, from a particular point of view.

Often one person's myth is another person's belief; and someone's *truth* is classified by another as myth. What is elementary to an understanding of human need is that all persons depend upon a system of belief in order to define their purpose and process of being.

Where did I come from? Why am I here? Where am I going? – these have been the age-old questions that rational, intelligent, introspective Man has asked since the earliest of times. Until recent days the predominant view within our Western culture was that we were created by God, we are here to glory in our relationship with Him, and we will return to Him when we die. Darwin and evolution have attempted to change that outlook; and many there are who believe so strongly in Darwin's model that, with utter contempt and complete misunderstanding, they have pejoratively charged the creation account as myth – that is, in their minds, fiction.

One well-positioned social commentator recently reiterated his prejudice by saying, "It seems impossible today, but people actually believed [in creation narratives] until as recently as half a century ago…. Today we know – and know right well – that there was never anything of the kind." (Campbell, 1988, pp23-24) Mr. Campbell, that seeming bastion of objectivity and tolerance, expresses a certain haughtiness when he elucidates, in typical dogmatic fashion, that "…today such claims can no longer be taken seriously by anyone with even a kindergarten education." (p8)

Campbell's thoughts are shared here for two reasons. First, because he pontificates in this fashion against the creation myths (as he calls them), while at the same time paying allegiance to Eastern accounts of origins, giving unquestioned credence to the cosmic round of Brahma, something like 8,640,000,000 years ago (p75); and subscribing to Leakey's 1,800,000 year-old man with impunity. (p30)

But more importantly is the concern that Mr. Campbell's biased and bigoted views were given full and honorable play by journalist Bill Moyers for his Public Broadcasting Service (PBS) television miniseries entitled *The Power of Myth*.

To say that Mr. Moyers either lacked the journalistic talent, or the necessary intelligence, or both, in order to confront the obvious prejudice shown by Mr. Campbell, reveals much about the mass media in our society today. When was the last time that a clear and forthright, literal rendering of the Judeo-Christian account of creation was broadcast on PBS or any of the major networks for that matter?

But such bigotry is not new among believers in Darwinism. Decades ago Teilhard de Chardin laid down the gauntlet as he defined the scope of evolution and all that it encompasses:

> [Evolution] is a general postulate to which all systems must henceforward bow and which they must satisfy in order to be thinkable and true. Evolution is a light which illuminates all facts, a trajectory which all lines of thought must follow – this is what evolution is.

Many enlightened intellectuals and educators subscribe to this point of view. However, evolution itself is a myth and should be studied in that manner. As Johnson (1990) so aptly states,

> Darwinist evolution is an imaginative story about who we are and where we came from, which is to say it is a creation myth. As such it is an obvious starting point for speculation about how we ought to live and what we ought to value. (p131)

Denton (1985) in his *Evolution: A Theory in Crisis*... notes that,

> Ultimately the Darwinian theory of evolution is no more nor less than *the great cosmogenic* myth of the twentieth century. Like the Genesis based cosmology which it [attacked], and like the creation myths of ancient man, it satisfies the same deep psychological need for an all embracing explanation for the origin of the world which has motivated all the cosmogenic myth makers of the past, from the shamans of primitive peoples to the ideologues of the medieval church….

> The influence of evolutionary theory on fields far removed from biology is one of the most spectacular examples in history of how a highly speculative idea for which there is no really hard scientific evidence can come to fashion the thinking of a whole society and dominate the outlook of an age….
>
> The twentieth century would be incomprehensible without the Darwinian revolution. The social and political currents which have swept the world in the past eighty years would have been impossible without its intellectual sanction. It is ironic to recall that it was the increasingly secular outlook in the nineteenth century which initially eased the way for the acceptance of evolution, while today it is perhaps the Darwinian view of nature more than any other that is responsible for the agnostic and skeptical outlook of the twentieth century. What was once a deduction from materialism has today become its foundation…. (p358, *italics* added)

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We need not necessarily stand in opposition to myths and the use of them in furthering human knowledge. Children need myths as they depart from their fantasy years; and scholars depend upon myths as they seek to interpret historical developments. In fact myths tell a real or fictional story, within an historical context, that embodies the cultural ideals of a people, and generally expresses deep, commonly felt emotions.

> By this definition, myths are generally good things – and the origin stories that [scientists] tell are necessarily myths. They are myths whether they are true or not, because they define and explain the crucial difference between human beings and beasts. (M. Cartmill, cited in Lewin, 1987, p118)

But we must remember (and never forget) that historically the power of myths has most frequently been used to enslave; and in our century, exterminate. Understanding *evolution as myth* is essential if we are to decipher the causes of an Adolph Hitler, the pervasiveness of abortion fundamentalism, the Death with Dignity movement, the furtherance of racism by an elitist press and academic community, and the emergence of the many esoteric and enslaving religions on the western scene today. It is largely within the context of Social Darwinism that these social maladies can be fully understood. And in the final analysis, it can characteristically be said, that –

Evolution is a scientist's pipe-dream; and a society's nightmare.

OLD EARTH vs YOUNG EARTH – IS THERE A MIDDLE GROUND?

Each year my students are given the opportunity to complete an assignment on the creation/evolution controversy as one of their quarterly Controversial and Current Issues (CCI) projects. The project is entitled "Old Earth vs Young Earth", and is a major undertaking for the 8th-grade student. The goal of the CCI is to encourage students to think critically by conducting and tabulating significant research, seeking and understanding opposing viewpoints, conducting interviews with informed and opinionated adults, and comparing/contrasting the issues with an ability to articulate a "middle ground," if possible.

This project is entitled "Old Earth vs Young Earth" because the heart of the creation/evolution controversy lies in viewing an earth history of approximately 6 billion years (give or take a billion) as opposed to 6 thousand years (give or take a thousand). By "middle ground" I don't mean a sought compromise between 6 billion and 6 thousand, something around 3 billion years; but instead finding an ability to compromise the underlying principles of creation and those of evolution.

The issue actually goes to origins – did the earth and the life on it evolve by chance, essentially from a non-material substance, over billions of years; or was the earth and life created through intelligent design and for a purpose. Could these opposing viewpoints be compromised to account for the created beginning of an evolving world?

Several students have expressed gratitude for being allowed to study origins from a different perspective than that of the evolutionary doctrine presented in their science classrooms, their textbooks, as well as the supplementary materials used in their classes.

Frequently students have said that what they learned about a created earth/universe through this project is what they've been taught in their homes and churches; but that they are not allowed to share these beliefs in their science class because creation is viewed as a religious issue. Their experience is borne-out by the guidelines given in the *Science Framework for California Public Schools, Kindergarten Through Grade Twelve* (1990), which states in part:

> At times some students may insist that certain conclusions of science cannot be true because of certain religious or philosophical beliefs that they hold. This is a difficult problem for these students and their families, and such difficulties should be acknowledged and respected. It is appropriate for a teacher to express in this regard, "I understand that you may have personal reservations about accepting this scientific evidence, but it is a scientific knowledge about which *there is no reasonable doubt* among scientists in this field, and it is my responsibility to teach it because it is part of our common intellectual heritage. (p20, *italics* added)

Beyond the condescension which such a statement represents, the authors of the state's public school science framework imply that *all* scientists adhere to evolutionary doctrine, and that there is no room for any other interpretations of matters of origins. The science teacher is told to, in effect, single-out the student ("personal reservations") while telling the student (and the class) that his/her views, as well as the views of the student's family and religious group, are not "reasonable."

Although many teachers of science have wisely and bravely chosen to ignore this advice by state officials, others use the *Framework* as a justification to indoctrinate their students in organic evolution and geological uniformitarianism.

Many of these teachers gladly use the textbooks and supplimentary materials which spout evolution as fact, and either don't make the effort to seek out alternate viewpoints of origins, or if aware of alternative resources, they don't make these supplimentary materials available for their students to use.

For the student who sits in the class of a teacher who believes in evolution as fact (and the *Framework* treats evolution as fact), and yet knows and can demonstrate intelligently that evolution is myth, there is no opportunity for dissention offered on the part of the educational establishment.

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In the years following Darwin's *Origins,*... many attempts have been made to compromise the literal creation account of the Biblical Genesis book with the notions of geological and organic evolution. Rushdoony (1967) has discussed this adequately for our purposes; and throughout his work he gives an historical perspective of several of these attempts. In so doing he identifies the primary motive of those who would seek to compromise the integrity of the Judeo-Christian creation account:

> Academic respectability could no doubt be gained, and the tension with modern scientists lessened, if somehow the Genesis account could be read in terms which would make possible an accord with geological hypotheses and still maintain, in some fashion, an ostensibly biblical theology.... Some of these attempts seek to be exegetical, pitting various expressions and phrases against the primary and open sense of Genesis 1. Others simply cast exegesis out entirely…. (p59)

My early views regarding creationism were formed by Ramm (1954/1968) more than any other author. Coming from his professorships at Baylor University and the California Baptist Theological Seminary, Ramm's integrationist philosophy carried considerable weight among conservative Christians in the 50's, 60's and into the 1970's (cf. Whitcomb and Morris, 1961/1990, pp36-37).

Because of his immense interest as a Christian intellectual in areas of atomic theory, relativity theory, mathematics, logical positivism, and naturalism, Ramm was seen as a sensible bridge for the layperson trying to conform to a world which was rapidly being overwhelmed with the discoveries and technical wonders of science. His courses in Bible and science, Christianity and science, and the philosophy of science were ever popular.

Ramm (1954/1968) saw two traditions relative to the Bible and science stemming from the intellectual revolution of the 19th-century:

> There is the ignoble tradition which has taken a most unwholesome attitude toward science, and has used arguments and procedures not in the better traditions of established scholarship. There has been and is a noble tradition in Bible and science, and this is the tradition of the great and learned evangelical Christians who have been patient, genuine, and kind and who have taken great care to learn the facts of science and Scripture. (p9)

As can be readily deduced by Ramm's terminology, he chose the "noble tradition" and in a reactionary stance critiqued what he categorized as "…a narrow evangelical Biblicism, and its narrow theology…." (p9) His great wish was to return evangelical Christianity to what he saw as the tradition of patience and kindness of the closing years of the nineteenth century. To be sure, others saw the "noble tradition" as simple acquiescence to those who, for whatever reason, held in contempt the literal reading of Scripture, if not the Bible as a whole.

Ramm's thinking epitomizes the dilemma the 20th-century Church found itself in after the notions of Lyell, Darwin, Huxley, etc. were taken as gospel in a world skeptical of authority of any kind, especially an institutional Church and its sacred and transcendental Scriptures which had, for four centuries, undergone attack. Although much of this attack was directed against the Church in Rome, there were those who seized the opportunity to rid themselves and Mankind of the behavioral strictures which the Judeo-Christian ethic historically represented. "This deep-moving secularism – life without God, philosophy without the Bible, community without the Church – was all in favor of the radical and critic, and against the Christian and the apologist" (Ramm, 1954/1968, p18).

Ramm (1954/1968) saw the battle in human and intellectual terms:

> The battle to keep the Bible as a respected book among the learned scholars and the academic world was fought and lost in the nineteenth century. (pp17-18)

Ramm (1954/1968) recognizes that "Evolutionary biology and uniformitarianism geology made serious inroads on theology" (p24); and he briefly discusses the discipline of the philosophy of science (p22) – but lacks the understanding to connect the two; to realize that it was the secular, often anti-God philosophy of Darwin, Lyell, et.al., who established notions and assumptions which later followers used to take science beyond its given limits.

No one – least of all the Christian – objected to science. The battle was over the philosophies which generated worldviews so often anti-Christian, frequently wielded in the name of science.

There existed evangelical Christians in the 50's, 60's, and 70's who had personal struggles with their own Biblical faith. Their educations had rightly taught them to be critical in their studies; however science was, during those years considered sacred; and the sacredness of Scripture was too often considered by academicians as passe, anti-intellectual, and often bizarre. For those who were unable to accept a personal, child-like faith in the God of Scripture, of creation, of personal salvation, of eternal life, the Bible was on shaky ground indeed.

Therefore, according to Ramm (1954/1968), it is the Christian who must conform to the truths of science; and if that meant giving up a literal interpretation of Scripture, in certain key areas, then so be it (p26). Ramm seriously felt that Christianity was embarrassed by science (p26)!

When one gives up certain Biblical events as literal happenings, it is generally done by attributing the problem to the other person's misinterpreting the Bible. When Ramm (1954/1968) casts this pejorative at the literal creationist he reveals the historical demarcation line between believers and unbelievers; and in doing so he unfortunately casts his lot with the unbeliever:

> [Conflict is caused by] misinterpretation of the Bible by scientist or theologian. If the scientist affirms that the Bible teaches creation at 4004 B.C. he needlessly makes science and Scripture conflict through misinterpretation. If the first step toward truth is the removal of error, the Ussher chronology should at this point be abandoned. If the scientist insists that the Bible teaches that the earth is flat, or the heavens solid, or that there are pillars supporting the sky,… then through his own misinterpretation he brings the Bible into conflict with science.
>
> If the theologian teaches that the earth is the center of the solar system, or that man first appeared on the earth at 4004 B.C., or that all the world was submerged under water at 4004 B.C. and had been for unknown millennia, he is misinterpreting Scripture and bringing Scripture into needless conflict with science….. (pp50-51)

By the time that Ramm wrote this statement he had unwittingly committed the error that the secular community had subscribed to for the previous century; the premise that geological uniformitarianism was true, beyond doubt – factual. And now, fully convinced of evolutionary geology, Ramm saw as his mission guiding other Christian believers in the intrigue of his compromise. Ramm had a sincere desire to not do anything that might offend the notion of Uniformity and thereby make for reconciliation with secular science and its evolutionary doctrines.

But such right-sounding compromising and consensus-building flies in the face of intellectual honesty, not to mention the consequences of abandoning the leadership role in the field of the philosophy of science. As Whitcomb and Morris (1961/1990) note:

> Many theologians since the days of John Pye Smith have seen very clearly the futility of trying to reconcile the doctrine of a universal Flood with uniformitarian geology. But not being willing to place themselves in the unpleasant position of opposing the conclusions of eminent geologists, they have accepted the alternative of the local Flood theory under the assumption that "a local flood could come and go and leave no trace after a few thousand years." (p109)

This is not the place to refute Ramm's arguments against the universal and cataclysmic event collectively known as Noah's Flood, since that task has been more than adequately accomplished by Whitcomb and Morris (1961/1990, cf. 36-115). But a summary they provide in the midst of their discussion is germane to our purpose:

> Bernard Ramm's two basic arguments against an anthropologically universal Flood really come down to this: the Flood was too recent to allow for the present population of the world, in its racial types and geographical distribution, to have descended from Noah's family. In answer to this, we have shown: (1) *negatively*, that there is no way of proving scientifically that the present distribution of mankind occurred at a date prior to that which the Bible suggests for the Flood, and (2) *positively*, that the relatively recent distribution of races from the Asiatic mainland, together with the circumstantial evidence from universal Flood traditions, is more favorable to the concept of an anthropologically universal Flood than it is to the concept of an anthropologically local Flood. Thus we must conclude that Ramm's arguments against a Flood that destroyed the human race in the days of Noah are inadequate, being sustained by neither science nor Scripture. (p54)

The most recent attempt to reconcile Biblical creationism with evolution and its ancient and unfathomable timelines is found in the work of Ross (1994) in his *Creation and Time: A Biblical and Scientific Perspective on the Creation-Date Controversy.*

Ross identifies himself as a Biblical creationist and attempts to frame his discussion of the controversy in a deistic manner by declaring that the matter of evolution and time-lines are separate issues. In other words, in Ross' view it is possible to believe in a universe billions of years old while holding that it was all created by God originally. Apparently Ross is unaware that the only reason one needs to believe in an old-age universe is if there is a felt need to justify the notion of evolution.

Ross' (1994) assertion that "(i)nterpreting the Genesis creation days as tens of millions or even hundreds of millions of Earth years in no way lends support to evolutionism" reveals a profound ignorance of Darwin's writings and motives, as well as those of the early old-age proponents. Ross argues that the whole age question is largely irrelevant, while at the same time composing a book to show how foolish, untenable and offensive the "young-earthers" are; and how scientifically sound are notions of billions upon billions of years (pp72,75,80).

In order for Ross to attempt a re-establishing of the broadly discredited gap and old-age creationist notions – generally called theistic-evolution – he unwittingly denies the universal, cataclysmic, world-destroying "flood" of Noah. Ross, like Ramm before him, considers the Noahic flood one of the "weaknesses"of the young-earth argument; and in doing so adheres his philosophy to Lyellian Uniformitarianism (p73).

Ross' stated goal is to reconcile the creation and evolution notions and dispel the animosity which he perceives exists between the "Christian" and the "scientific" communities. He fails in this attempt primarily because he is an admitted old-earther who attempts to carry these notions into Christian theology in order to cultivate a healing between the two camps.

In fact, Ross (1994) shows a contempt for Christian theology by rather boldly declaring that even the theological case supporting a young earth is untenable (p72)! He confidently asserts that "scientific evidences explicitly and overwhelmingly affirm [the old-age of the universe]." (p91) And as an astronomer, Ross claims that he is looking into the past and actually seeing the initial stages in the creation of the universe some 16,000,700,000 years ago (p100)!

When it comes to matters of "history" (years ago), Ross unabashedly puts his faith in science and interpretations of what is "observed", rather than the record of inspired scribes, most notably the author(s) of Genesis. Ross' unrelentless quest for knowledge of the past, gleaned from the "facts of nature" (as correctly interpreted), in order that he might be the acknowledged expert of the present, has led him down a perilous path.

Hawking (1988) discusses, and apparently holds to this same elitist, esoteric, neo-gnostic attitude:

> Because theories are always being changed to account for new observations, they are never properly digested or simplified so that ordinary people can understand them. You have to be a specialist, and even then, you can only hope to have a proper grasp of a small proportion of the scientific theories…. Only a few people can keep up with the rapidly advancing frontier of knowledge, and they have to devote their whole time to it and specialize in a small area. The rest of the population has little idea of the advances that are being made or the excitement they are generating. (p168)

In their respective works Ross and Hawking certainly give every indication of such unbounded enthusiasm. It reminds one of the old adage that a *specialist* is someone who learns more and more about less and less until finally he knows everything about nothing!

In his *The Creator and the Cosmos,...* Ross (1993) freely admits to having struggled with professional pride – among scientists that being the insight to know the mind of God (p87; cf. Hawking, 1988, p175).

This professional pride emanates from two sources; one being the natural human desire to become as God – all powerful, all knowing, immortal; while the second source emanates from feelings of inadequacy which academicians frequently struggle with – the "publish or perish" syndrome. In a field where the only goods produced are generally theories and papers, there is a constant need for self-gratification, and self-advancement, fomented by a large measure of hype.

Unlike the craftsman, who has a tangible product to display; and who then is judged to be either an apprentice or a master in his field, the scientist who ventures into philosophical areas practices an esoteric art, which brandishes a need for expertise, interpretation, professional recognition; and once that, "educated" speculation.

Setting aside the literal Genesis creation account, applying spurious tests of Biblical criticism while seeking knowledge of the ultimate, is reminiscent of the ugly incident of Eve, the Serpent, and the Tree of Knowledge as recorded in Genesis 3. Malcolm Muggeridge, the British author and Christian intellectual, offered these insightful words concerning this quest for knowledge:

> Accumulation of knowledge is a form of avarice, and lends itself to another version of the Midas story; this time of a man so avid for knowledge that everything he touches turns to facts. His faith becomes theology; his love becomes lechery, wisdom becomes science. Pursuing meaning he ignores Truth!

Ross (1994) gives every indication of being caught-up in what I've called the "reasonableness syndrome." This is most pronounced as he is trying to lay the theological ground-work for his old-age notions (pp49-58). When people don't have a firm grounding on an absolute and immovable truth they frequently speculate. Ross has bought into the "seems reasonable" terminologies which permeate much of the "scientific" literature today.

According to Ross (1994) it "…seems reasonable to conclude then, given the parallelism of the Genesis creation account, that the first six days may also have been long time periods." (p49) He is willing to speculate about the true ages (as opposed to those given in Genesis) of Adam and Eve at creation (p54). Ross feels that it is reasonable to conclude that the physical universe speaks truly (p55).

All of this speculating and compromising raises some fundamental questions about Ross' theology and his view of the Judeo-Christian Scriptures:

> Many young-universe creationists limit the Word of God to the words of the Bible. Since the Bible declares that only God and His Word *are* truth, these creationists consider information from any source outside the Bible as inferior and suspect. (1994, pp55-56)

Apart from the fact that Ross goes on in his discussion to make a ludicrous sweeping generalization – "To them, extra-biblical data holds little value for clarifying what the Bible teaches on any issue or for prompting correction of faulty interpretation", (p55), – for Ross to place himself open to extra-Biblical "revelation" is highly dangerous.

The warning that the Christian who believes in a literal rendering of the Bible finds in Ross' writing is amplified in *his* discussion of revelation:

> So, God's revelation is not limited exclusively to the Bible's words. The facts of nature may be likened to a sixty-seventh book of the Bible. (1994, p56)

Ross finds it necessary to supplement the Bible in order to justify his notions of an old-age universe. Whereas Hutton and Lyell initially rejected the Bible as a record of origins so as to fashion their own spurious time-lines; and whereas Darwin used Hutton and Lyell to discard the Bible's record of specific creation in favor of an evolutionary process, Ross, as an old-earth creationist, has simply added to the Scriptures to his liking.

Hutton, Lyell, Darwin, Huxley, Hawking, Ramm and Ross have clearly shown by their various offerings that there is no way to reconcile old-earth evolutionary notions with those of the Biblical Genesis account of created origins. Any future attempts are sure to yield the same results.

In the final analysis, one must chose between a universe/earth/life which were created by God in the recent past as literally given in the Genesis account; or adopt a philosophy which accounts for all from nothing through an evolutionary process over millions and billions of years. There appears to be no "middle ground."

CONCLUSION

What would cause an evolutionist to continue in opposition to the creationist model even after being presented with increasingly compelling evidentiary material? Morris (1989) suggests that it is open rebellion against the God of Creation. Surely the Darwins, Lyells, Huxleys, Freuds, Marxs, of the world fall into this category. But what of the masses, many of whom are professing Christians or at least believers in the God of the Universe? Is it not possible that these individuals have simply been overwhelmed with the constant bombardment of misinformation that has grown out of the work of the original evolutionary proponents?

The man-on-the-street and typical student within the public school setting are literally inundated by a self-serving mindset which, in itself, is not only a most fundamental religion, but is a belief system which vigorously opposes Biblical Judaism and Christianity in no uncertain terms. Listen to the explanation of one highbrowed intellectual:

> In cultures such as ours, religion is very often an alien form of life to intellectuals. Living as we do in a post-Enlightenment era, it is difficult for us to take religion seriously. The very concepts seem fantastic to us…. That people in our age can believe that they have had a personal encounter with God, that they could believe that they have experienced conversion through a "mystical experience of God", that attests to human irrationality and lack of sense of reality. (Nielsen, 1977, p46)

That's not to say that some proponents of evolution wouldn't wish to be freed from this myopic viewpoint. Their writings are at times apologetic:

> …[F]or most of us the concept of geologic time is an incomprehensible abstract. The enormity of a time span such as the 4.7 billion years that is the estimated age of the earth is totally alien to minds accustomed to computing time in days and hours. (*Bryce Canyon: The Story Behind The Scenery*, p5)

Some of the writings of evolutionists are pointedly self-denigrating. A prominent scientist has charged:

> One of the most astonishing characteristics of scientists is that some of them are plain, old-fashioned bigots. Their zeal has a fanatical, egocentric quality characterized by disdain and intolerance for anyone or any value not associated with a special area of intellectual activity. (Adelson, 1964, p373)

Some scientists are refreshingly honest when it comes to placing evolutionary tenets within their proper perspective. Misia Landau, an anthropologist at Boston University, concludes from a study of scientific literature on evolution that accounts of human origins, instead of being scientific constructions based on factual foundations, are more strongly influenced by the literary tradition of the "hero myth".

> They are literary narratives, not scientific theories. A hero (our ape-like ancestor) is introduced, is faced with certain tests (adverse climates and environments), and is eventually triumphant (reaches the status of *Homo sapiens* cradled by civilization). It is an account of triumph over adversity [in the best of survival-of-the-fittest traditions]. (cited in Lewin, 1984, p25)

The hero myth analogy suggests a series of "literary narratives" which have, on the one hand been generated by the perceived needs of the larger culture; and, on the other hand, have captivated its secular imagination. We have the "Aggressive Man" of the 1850's; "Man the Thinker" of the early 1900's era; "Man the Toolmaker" was a popular theme in the 1950's as was "Man the Communicator".

The 1960's produced "Man the Hunter"; the 1970's promoted "Man (and now Woman) the Gatherer"; and in the 1980's it was "Man/Woman the Food Sharers". These imaginative titles show nothing more than changing fashions on the evolutionary horizon (cf. Lewin, 1984, p28).

The twin concepts of gradualism and immense time are crucial to the idea of evolution. And yet the open-minded evolutionist who harbors a healthy scientific skepticism recognizes the dilemma and can speak eloquently to it:

> Those [hypnotic] words "gradually" and "step by step", repeated incessantly, are aimed at covering an ignorance which is both vast and surprising. One should like to inquire: which steps? But then one is lulled, overwhelmed and stupefied by the gradualness of it all, which is at best a platitude, only good for pacifying the mind, since no one is willing to imagine that civilization appeared in a thunderclap. (de Santillane and von Deshind, 1969, p68)

Herbert Wendt (1968) wrote an entire book (*Before the Deluge*) denigrating the idea of a global flood, cataloging the methods used by evolutionists to present and justify their ideas, and beginning his work with this profound (and not to be overlooked) statement: "[the methods we use] sometimes also lead to fanciful, even fantastic conclusions which impose considerable strain on our credulity" (p. ix).

In his compelling essay entitled "The Universe Was Created by Accident" (1987), Victor Stenger provides no doubt the most cogent arguments in favor of the evolutionist doctrine; and yet he must conclude his prose on an honest and forthright note:

> Much is still in the speculative stage, and I must admit that there are yet no known empirical or observational tests that can be used to test the idea of an accidental origin. (p123)

Whereas Stenger is greatly concerned that students of science realize that proving (or disproving) Divine Creation is not possible because the task cannot fall within the rigors of the scientific method, he drops his guard and removes the lab coat in attempting to demonstrate how all that exists came about by accident. And in doing so he makes a serious philosophical blunder by appealing to the ancient and discredited doctrine of spontaneity, while at the same time looking to "the course of future study" in the hopes of answering ultimate questions of origins.

Rolston (1986), in anticipating the ludicrous notions of Stenger, outlined a number of factors to demonstrate how, in fact, physics shows that the series of events which produced our universe had to happen in a precise way, "…at least, they had to happen that way if they were to produce life as we know it."

> [G]iven the innumerable other things that could have happened, we have reason to be impressed by the astonishing fact of our existence. Like the man who survives execution by a 1,000-gun firing squad, we are entitled to suspect that there is some reason we are here, that perhaps there is a Friend behind the blast. (p126)

Rolston carefully outlines the thoughts of a number of prominent physicists and scientists to show that "…[a] remarkable and intimate relationship between man, the fundamental constants of nature and the initial moments of space and time seems to be an inescapable condition of our existence [B. Lovell]. Astronomer Fred Hoyle reports that his atheism was shaken by his own discovery that in the stars, carbon just manages to form and then just avoids complete conversion into oxygen. If one atomic level had varied half a percent, life would have been impossible." (p126)

• • • • •

When you pause to ponder, and are able to peer above the din – and do some independent investigating – you find that the Evolutionary Story really insults *and* assaults human intelligence. In fact the "Story" (as evolutionists are prone to call it) is not just incredible; it is simply unbelievable.

What I am suggesting is that Darwinian Evolution and the doctrine which follows is based on shoddy research; and the greatest defect in the research design is the lack on the part of proponents to know, let alone understand, the basic assumptions of their reasoning. It is in fact what Darwin's contemporary, Harvard professor Louis Agassiz (1860) called, "a scientific mistake, untrue in its facts, unscientific in its methods, and mischievous in its tendency" (p143).

Evolution is a worn-out idea, the original intent and purpose of which was to deny the God of Abraham, Isaac, and Jacob (Israel) His creative glory.

When Christians pray they do not simply beseech the God of their salvation; they also acknowledge the God of their creation. They are taught in their Scriptures to acknowledge God through Christ Jesus as the Creator and Sustainer of the Universe, this Earth, and their daily lives. He is a personal God who deals with His Creation in

loving-kindness and righteousness on a moment by moment basis. He is providential in all affairs of Man from king to pauper.

> The layman queries, There is no God? All of the wonders around us are accidental? No almighty hand made a thousand billion stars? They made themselves? The surface of our land just happens to have topsoil without which we would have no vegetables to eat, and no grass for the animals whose meat is our food? The inexhaustible envelope of air, only 50 miles deep and of exactly the right density to support human life, is *just* another law of physics?
>
> We have day and night because the earth spins at a given speed without slowing down. Who made this arrangement? Who tilts it so that we get seasons? The sun's fire does not generate too much heat so that we fry, but just enough so that we do not freeze. Who keeps its fire constant?
>
> The human heart will beat for 70 or 80 years without faltering. How does it get sufficient rest between beats? A kidney will filter poisons from the blood and leave the good things alone. How does it know one from the other? Who gave the human tongue flexibility to form words, and who made a brain to understand them? Is it all accidental?

The Darwinian evolutionist responds unequivocally, "Why of course!" – all in the name of some perverted form of *Enlightenment*.

• • • • •

According to Christian believers, Christ also judges His creation. It has been the hope and effort of some of the most learned and persuasive individuals of the 19th and 20th-centuries to deny this judgment, and in the process formulate an antidote to the terrible punishment which Christians believe is yet to come. Therefore the Noahic judgment had to be challenged by Lyell in the same manner as Freud attacked the Laws (and person) of Moses in an attempt to absolve the world of guilt (cf. Schweigerdt, 1982, pp5-57).

Make no mistake about it! Inherent in the idea of evolution is the assumption of uniformitarianism. If one accepts this premise than the reality of cataclysmic geology must be rejected. If one rejects this evidence then he has rejected along with it the account of the cataclysmic Noahic Flood of the Bible; and with it the reality of God's judgment on the earth and mankind. And if there *was* no judgment, and none to come, then what is the need of a Savior?

> How we who have little belief envy those who are convinced of the existence of a Supreme Power, for whom the world holds no problems because he himself has created all its institutions! How comprehensive, exhaustive, and final are the doctrines of the believers compared with the labored, poor, and patchy attempts at explanation which are the best we can produce!
>
> – Freud, 1939

A POSTSCRIPT
Evolution Is Myth

As I was putting the final touches on this manuscript an issue of *Time* magazine crossed my desk. The cover story caught my attention – "How Life Began: New Discoveries Provide Some Surprising Answers to an Age-old Question" (October 11, 1993). This feature article purports to bring the level of debate over *evolutionary* origins to a new level. The reporters, as occurs consistently in the media, appear totally ignorant to any creation accounts; and indeed, subscribe to uniformitarian age-scales for the universe/earth/life.

Upon completing the article I was immediately drawn to Chesterton's quote which I used at the beginning of this book:

People who don't believe in God will believe in anything.

"How Life Began…" certainly fulfills this discerning observation. The authors tackle the question with vigor and along the way dispel a number of myths which science has adhered to for decades. Among these hard-to-swallow notions are Darwin's organic soup and Miller's sticky goop.

The current fad, according to *Time's* science writers, appears to be a "snippet of synthetic RNA" which appeared recently at the Scripts Research Institute.

> [This snippet] proved unusually talented. Within an hour of its formation, it had commandeered the organic material in a thimble-size test tube and started to make copies of itself. Then the copies made copies. Before long, the copies began to evolve, developing the ability to perform new and unexpected chemical tricks. Surprised and excited, the scientists who witnessed the event found themselves wondering, is *this* how life got started?

But alas, where did the chemicals come from, how were they combined, and organized; and what was the catalyst that generated them into a living form? Well, if we can't have Darwin's broth or Miller's stew, how about these appetizing and intriguing explanations, all found in this "Once Upon A *Time*" saga:

- The *Cosmic Snowflake Theory*: "Countless tiny particles – each potentially carrying a payload of organic compounds – fall to earth like cosmic snowflakes…."

- The *Comet Shuttle Theory*: "Comets, black with carbon, could have flown in some raw material. Whether it would have helped to spark life no one knows, since the chemical make-up of comets remains largely a mystery."

- The *Bursting Bubble Theory*: "Bubbles in the ocean served as miniature chemical reactors…. [W]hen bubbles burst, they forcibly eject their accumulated molecules into the atmosphere, where other scientists feel the most important chemistry takes place."

- The *Ambivalent Water-shy Amphiphile Theory*: These molecules have one side with an affinity for water and another side that is repelled by water. Bobbing in the primitive oceans, the molecules would have hidden their water-hating sides away by curling into tiny spheres. These spheres, known as vesicles, would have provided an ideal setting for chemical reactions, and could have been precursors to the first cells. "Once you have these little vesicles,… you're on the way to life."

- The *Glittering Fools Gold Theory*: "[W]hat we call life began as a series of chemical reactions between certain key organic molecules. Instead of being enclosed in a membrane they might have been stuck like pins in a cushion [suggesting the *Pin Cushion Theory* perhaps?] on the surface of some accommodating material…. [T]he surprising candidate for this all-important material – pyrite, or fools gold[!!]"

The *Time* reporters conclude all of this satyric ruminating with these cogent thoughts:

> One of these days, when someone fills a test tube with just the right stuff, a self-replication molecule will pop up.
>
> [But alas], some people will always hold to the belief that it is a divine spark that brings matter to life, and for all their fancy equipment, scientists have yet to produce anything in a test tube that would shake a Fundamentalist's faith._

Indeed, "People who don't believe in God will believe in anything." And as Eiseley so eloquently noted:

> With the failure of its many efforts, science has been left in the somewhat embarrassing position of having to postulate theories of living origins which it could not demonstrate. After having chided the theologian for his reliance on myth and miracle, science found itself in the unenviable position of having to create a mythology of its own: namely, the assumption that what, after long effort could not be proved to take place today had, in truth, taken place in the primeval past.

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GLOSSARY

THIS IS AN UNEDITED COPY OF THE "Evolution As Myth…" GLOSSARY. FORMATTING AND PAGE NUMBERING DO NOT NECESSARILY MATCH THE VERSION CONTAINED IN THE WINDOWS XP, WORD '03 DOCUMENT.

abiogenesis: The origination of living from lifeless matter. Synonymous with the concept of spontaneous generation, a notion disproved by Redi and Pasteur.

abstractus epistomus: Conceptual pathology which causes/allows the sufferer to view abstract knowledge as factual. Charcot is said to have told Freud that, "Theory is good, but it does not put a stop to facts."

adaptation: The change process which allows an organism to become suitable or fit to live in different conditions. In biology an alteration or adjustment in structure or habits, often hereditary, by which a species or individual improves its condition in relationship to its environment. Limited change within a species, and as such commonly referred to as *micro-evolution*.

assumption: Something taken for granted or accepted as true without proof; a supposition. In the sense of today's science, assumptions are premises upon which investigations and subsequent discoveries are based. In many ways today, in the context of science, assumption has become *pre*sumption, and in a behavioral sense is often couched in language that is boldly arrogant or offensive, bordering on effrontery. (see dogmatism)

astrophysics: Daniel Cripe (1991) provides this pertinent observation: "The branch of astronomy that deals with the physical properties of celestial bodies, in theory mostly, at least at this juncture, and with interactions between matter and radiation in the interior of celestial bodies and interstellar space (the space between stars). There is a philosophical and mystical branch of astrophysics that might be called New Age science and appears to be forming a close working correlation with the mythology of New Age religion. Religion is going to play a much greater part in the science of astrophysics in the future than will empirical evidence and experiment, one feels. Those who hold this view have already revived and revised the 19th century mathematical formulas of Georg Reimann and have laid claims to having created order out of chaos in certain insignificant and peripheral computer models. This project is working to overcome the stigmatism of the first and second laws of thermodynamics to the evolutionary theory. It proposes to have shown, by these model successes, that evolution can take place in a world where entropy (the decline of available energy) is known to be a reality. The lie is put to this whole syncretic claim when one is made aware that in every one of these model experiments, energy has been artificially added at some point. This means that the very thing this school of astrophysicists is attempting to prove, and claim to have proven to some small degree -- that order can be brought from chaotic conditions -- is not only false but deceitful. Because of the addition of energy, these experiments prove just the opposite. Conditions on the earth had to be totally different than they are now for anything to have been created and for order to have come. This energy could only have come from an outside source, and that source could only have been God, since there is no ascendancy of energy anywhere in the universe. Astrophysicists, by these new theories, have conceded that, at least in their view, Hubble's theory of the expanding universe, which was supposed to have answered the energy supply problem, has failed to fly. The necessity for the addition of energy confirms the biblical declaration and the empirical evidence devolution since the fall in the Garden. Apparently the underlying design of these abstract experiments is to lay the groundwork for using cosmic, New Age religion to overcome the lack of scientific evidence,

though it is not clear yet just what shape that is going to take." (pp23-24)

black hole: A region of space from which nothing, not even light nor time can escape because the gravitational force is so strong.

catastrophism: The view that dramatic, violent, and sudden changes produced Earth's major features. This view of Earth's history is contrary to the view of uniformitarians who argue that nature's processes operated at a more or less uniform rate. In the ultimate sense for the catastrophic worldview, the cataclysmic, world-wide Deluge (Flood) as recorded in Genesis, literally destroyed and then transformed the Earth's surface, enveloping the Earth's living forms within the multi-layered strata which we witness today.

cataclysm: When describing the global Flood of Noah both the Old Testament Hebrew and the New Testament Greek languages use words which mean a cataclysmic event -- a totally unique occurrence: Hebrew, *Mabbool*, and Greek *Kataklusmos*, from which our English word descends.

doctrine: A principle or body of principles presented for acceptance or belief, as by a religious, political, scientific, or philosophic group. A rule or principle of law, especially when established by precedent. To indoctrinate is literally to instruct in a body of doctrine or principles, to imbue with a partisan or ideological point of view. When applied to science instruction in public education today, students are taught to accept evolutionary notions of origins and processes, uncritically, without recourse to alternative views of origin theories. In this sense, Darwinian evolution has become the fundamental doctrine of scientific orthodoxy today.

What can students do to off-set indoctrination when it happens to them?

Learn the assumptions (premises) upon which beliefs and the dogmatic statements are based. Contrary to what we have been led to believe, students will be indoctrinated while in school; in science, history, language arts, social studies, and other courses. It is important that students learn to think critically and begin to feel comfortable in challenging those teachers, textbooks, and supplimentary materials which treat them as a spoon-fed subject, rather than a fellow scholar. I can't begin to emphasize how important this is for students as well for the future of our civilization.

dogma: An authoritative principle, belief, or statement of ideas or opinion, especially one considered to be absolutely true. As applied to the evolutionary notions woven throughout much of science instruction today, The ideas of evolutionists are set forth in an authoritative manner in such a way that students are not allowed to critically challenge the ideas or premises upon which the ideas are predicated. In this sense, the notions of Darwin have become tenets of the faith promoted by today's scientific orthodoxy.

dogmatism: *A viewpoint which is based on insufficiently examined premises*. The ultimate goal of education is to teach young people how to think critically, and to seek-out the assumptions upon which ideas, notions and theories are based. When educators fail in this regard they are often guilty of indoctrinating students in the orthodox notions of the day.

esoteric: Information that is intended for or understood only by the select and gifted few because of the vague, mysterious and elusive nature of the subject.

ether: The element believed in ancient and medieval civilizations to fill all space above the sphere of the moon and to compose the stars and planets. In

physics ether is the all-pervading, infinitely elastic, massless medium formerly postulated as the medium of propagation of electromagnetic waves.

heresy: A controversial or unorthodox opinion or doctrine, as in politics, philosophy, religion, or science. Those charged with adherence to such controversial or unorthodox opinions are today accused of being unreasonable; or worse, as being heretics.

macro-evolution: The hypothesis of large-scale changes, leading to new levels of complexity. The notion of evolution today is based upon this hypothesis, and is, in fact the general usage in the current lexicon of scientific themes.

micro-evolution: Small-scale genetic changes, observable in organisms. The concept of adaptation which allows organisms to change according to their environment. The most frequently used example of observable changes in an organism is the case of the peppered moth. When the bark of birch trees was white in pre-industrial England, dark-colored moths who settled on these trees were eaten by birds, leaving the light-colored moths to survive and multiply. When soot from factories turned the tree bark dark, the light-colored moths were vulnerable, and the dark moths survived and increased. After environmental regulations cleaned up the air and the bark of trees returned to their natural color, the light-colored moths were then the ones to return the species to the lighter color. The peppered moth is an example of micro-evolution, and not macro-evolution, since the moth is still the moth, and will always be a moth. The complexity of color was always a part of the moth's genetic structure and allowed for the species' survival through adaptive change, and later non-mutational reversion.

myth: In the best sense, a myth is a traditional story of ostensibly historical events that serves to unfold part of the world-view of a people or explain a practice, belief, or natural phenomenon.

When used dogmatically, a myth is a traditional explanation of life and its origins which so expresses or coincides with the contemporary spirit that its often radical contradictions and absurdities are never apparent, in that they express the basic presuppositions, however untenable, of everyday life and thought (Rushdoony).

nature: The structure and logic of creation.

naturephilosophie: The name of the pantheistic monism, close to mysticism, which was eagerly accepted by the average educated man and liberated lady of European culture just before and during the times of Charles Darwin. This philosophy of nature (Naturalism, really) sees the Universe -- Nature -- as one vast organism, ultimately consisting of forces, of activities, of creations, of emergings -- organized in eternal basic conflicts, in polarity; reason, conscious life, mind being only the reflection, the emanation, of this unconscious turmoil. These ideas have been expressed before and since and contain the seed of some of the scientific theories of the nineteenth century and of our time. But it is not the ideas that were characteristic of the movement nor even the romantic temper enveloping them; that was a general European trend at the time. What characterized the German Naturephilosophie was the aspiration expressed in the name "speculative physics", and the unbalanced megalomanic emotionalism of the fantasy and style of its supporters (cf., Jones, E., 1953, The Life and Work of Sigmund Freud, pp43, 250)

Origin of Species, The: (complete and original title: *The Origin of Species By Means of Natural Selection or the Preservation of Favoured Races in the Struggle for Life*). The first book of Charles Darwin, in which he explains his notion of organic evolution. Hirsch, Kett, and Trefil in their Dictionary

of Cultural Literacy provide this description of the book (and this is all they say): "When published in 1859, it provoked great controversy; by casting doubt on the historical accuracy of the biblical accounts of Creation, it caused many believers to question their faith in Christianity (p493)."

orthodoxy: Adhering to beliefs or practices approved by authority or tradition. Although usually used in the context of religious systems, I've applied the notion of orthodoxy to the broad field of theoretical science, both historic and current. In the ever-present quest for definitive knowledge which would provide the possessor with tremendous power, science has become, for many, an orthodox faith tantamount to some of the world's great religions. Evidence of this is the attitude taken by believers in Darwinian evolution when challenged on their premises. It is customary in such cases to hear the disciples of Darwin referring to those holding to alternative views of origins to be called heretics.

probability: The likelihood that a given event will occur.

quantum mechanics: A mathematical system developed in the 1920s to describe the strange behavior of matter and energy at the subatomic level, the world of particle physicists.

quantum physics: The speculative branch of physics which uses quantum mechanics to deal with the behavior of matter at the level of the atom, the nucleus, and the elementary particle.

reason: Logical deduction from known premises. From what common sense emanates.

scientific method: The SCIENTIFIC METHOD: Must be observable, testable, Repeatable, Predictable. The process of investigation must also clearly elucidate the assumptions upon which research is undertaken. The interpretation of evidence and findings plays a significant role in contemporary scientific methodology, and is, to a large extent, dependent upon prior suppositions prompting the investigation in the first place.

spontaneous generation: The belief that sometime in the past life-forms arose from life-less matter. Examples of spontaneous generation (see also abiogenesis) are the once-held belief that mice could arise spontaneously from spilled wheat in barns, and that flies arose spontaneously out of rotting meat.

superstrings: String theory is used to describe elementary particles as extended, one-dimensional objects which have ends that whip around at the speed of light. These objects ("strings"), when manifesting fractional and integral spin, are described as superstrings.

It is currently felt that in order to demonstrate and prove the reality of Superstring "theory" (the latest fundamental notion), that the Superconducting Super Collider (SSC) must be built. What impact would the SSC have on us should it be constructed?

The government actually began construction of the SSC in Texas in 1993; however, the project has now been scuttled and it is doubtful that construction will be resumed. The SSC would have been the largest scientific machine ever built. As planned it would have been a $6 billion colossal particle accelerator (atom smasher) designed to probe deep into the atom's nucleus.

The main ring of the SSC would have been so large -- perhaps up to sixty miles

across -- that the Washington Beltway encircling the Nation's capital could easily be placed inside it.

In addition to the $6,000,000,000 construction costs it would take 3,000 scientists and technicians to operate, as well as devouring enough energy to power a large metropolis.

Consider the impact that the SSC would have on our environment. The machine itself would be housed in a narrow circular tunnel about twenty feet wide and perhaps two hundred miles long. It would need to be placed underground to absorb the admittedly intense radiation created by the operation of the machine.

And then realize that "Even the greatest scientific project in history -- the $6 billion SSC -- will at best scratch the surface of the superstring theories." (Kaku, and Trainer, 1987, *Beyond Einstein: The Cosmic Quest For The Theory Of The Universe*, pp17, 136, 201)

theistic evolution: The belief that God used evolution as His method of creation, thus allowing for vast eons of time for earth's history.

[Theistic evolution] is untenable for many reasons, including the following: 1. It allows death and bloodshed before Adam's sin (Romans 5:12 and 1 Corinthians 15:21-22 tell us death entered the world through Adam's sin). 2. It is not the view of evolutionary textbooks or encyclopedias, which present evolution without God, so it gets no support from science. 3. Many evolutionists believe 'the present is the key to the past' – that the alleged evolutionary processes of the past are still going on today. But the Bible tells us God finished His work of creation after six days and rested on the seventh. (Creation ex nihilo, June-August 1995, p19)

A modern form of theistic evolution is called progressive creation, which is the hypothesis that God has increased the complexity of life on earth by successive creations of new life forms over billions of years while miraculously changing the earth to accommodate the new life (Creation exnihilo, March-May, 1995, p33).

teleology: Philosophically, teleology holds that every individual thing in the universe moves toward a goal inherent in its nature. Metaphysically it encompasses the traditional belief in the world as a purposeful created order. This latter "outlook" had been predominant in the western world for at least two millennia, and, until the time of Darwin, had been the basis of most of science, which found its proof from the order of the finite world.

According to Darwin's notions all the design, order, and complexity of life, and the eerie purposefulness of living systems, were the result of a simple blind random process -- natural selection. Before Darwin, men had believed a providential intelligence had imposed its mysterious design upon nature, but now chance ruled supreme.

theophobia: The fear of acknowledging a transcendental dimension to the universe and a person's life, emanating generally from a lack of humility and the inability to recognize any power greater than the Self.

theory: A framework upon which scientists gather facts while they are forming conclusions.

We are currently undergoing a revolution in thinking on the matter of Origins. Increasingly, the notion of evolution is loosing its intellectual

appeal. Fundamental to an understanding of Man's intellectual quest for origins is that evolution, progressive mutations, and the transmigration of species, was never a theory in the scientific sense: It was sheer speculation born out of a bad case of frustration and collective cognitive dissonance (Darwin's Dilemma).

Science walks on two feet -- theory and experiment (see scientific method). Speculation finds its safe haven in metaphysics where ideas are generated, formulated, nurtured, and then logically expounded. But speculation can deceive, and is often self-deceptive. We should not forget that in the several thousand years of Man's existence on earth he has been the victim of a thousand illusions, fallacies, wrong assumptions, half-grasped notions and grotesque speculation -- today he still is; and increasingly so!

It is not left to science to answer the historical: Where did the world and universe originate; how did this happen; why is it so? It is left to science to answer the material: What is the world and universe made of; and how do they function?

When it comes to Darwinian evolution, considerable confusion occurs in the discussion regarding theory and fact. Klotz (1979) notes that, "The theory of evolution can't be true because you cannot demonstrate factually that it is correct. It is an explanation. I believe we need to recognize this when we say that evolution is merely a theory. Often this is a loaded phrase and we imply that it is not important. In one sense this is correct because it cannot be true. At the same time I do want to stress that theories are important. Some people say that evolution is only a theory and we need not be concerned about it. But evolution often governs our actions because a theory does govern actions and, therefore, theories are very important."

uniformitarianism: Uniformitarianism is a method of historical and chronological investigation which was founded and developed by British geologists James Hutton and Charles Lyell in the early 18th century. Charles Darwin and his notions of evolution and natural selection are dependent upon uniformity in timelines; and uniformitarianism is the foundation for dogmatic evolution. Hutton and Lyell formed their notions in reaction to the age-old teachings and belief in the universal flood of Noah.

This "Flood" was actually a hydro-catastrophic DELUGE; but beyond that, it was a cataclysmic event. The ancient Greeks used the word *kataclysmos*. This singular event, which included not just "rain" but also tectonic eruptions of unfathomable proportions, literally destroyed the surface of the earth and all air-breathing life thereon -- except for those who escaped in the Ark which Noah was instructed to construct.

Lyell maintained that, "The operations of nature are equable and steady" (1788). The Uniformity model can be summarized in these words: "The Present Is The Key To The Past." In other words, the natural processes which we see today have been consistent and constant over all time. This view is opposed to that of catastrophism which holds that the Earth's major features (ie., The Grand Canyon) resulted from a dramatic, violent, and relatively sudden change.

During most of the twentieth century, science textbooks have extoled Hutton/Darwin/Lyell-style uniformitarianism and have stated that catastrophes were not needed to explain geological findings. But the 1980's have produced a new crop of "catastrophic" theories from those who still hold to old-age notions (millions/billions of years). Classified as "neo-catastrophists", these individuals acknowledge that close observations of the stratigraphic record reveals that radical changes (note plural, changes) in species really

have occurred in history's past. Prone to discount the Biblical Flood, neo-catastrophic proponents generally seek extra-terrestrial events such as asteroids and comets as causes of drastic changes for the Earth and its inhabitants (cf. Hartmann, 1991). Literal Creationists who believe in a six-day creation and a literal accounting of time as related through the genealogies found in the Judeo-Christian scriptures, are not sympathetic to the Neo-creationist notions, since they subscribe to the belief of innumerable catastrophes within a uniformitarian context.

virtual reality: Based on quantum theory the belief that the whole of the universe rests on chance and randomness at the subatomic level. According to the mathematical "observations" employed in quantum physics, some particles exist so briefly that they are not real but "virtual". The well-ordered reality we experience is actually our unique perception of a universe which is random and without order.

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