#### **INTRODUCTION**

Whenever one brings up the subject of Creation vs. Evolution there is an assumption within the scientific and academic community that when one speaks of creationists one is speaking of religious doctrine (and is thus non-scientific) while evolution by definition is scientific. Typical of this attitude is a statement entitled "A Statement Affirming Evolution as a Principle of Science", **The Humanist**, Jan/Feb 1977, pp 4-7. It states in part,

There is no alternative theories to the principle of evolution, with its "tree of life" pattern, that any competent biologist of today takes seriously.... Creationism is not scientific; it is a purely religious view held by some religious sects and persons ...

I and hundreds of other competent scientists of all disciplines of science are disputing those claims and speaking out in favor of creationism. The reason for this does not involve religion, but rather that creationism makes better science.

### **Theory or Model?**

The term most often applied to evolution is word "theory". But technically speaking is evolution (or creation, for that matter) a theory at all?

Over the years there has developed a concept of the "scientific method". While one may argue whether the "scientific method" exists in the real world of theoretical and experimental science, the concept is good. The essence of a scientific theory is that it is at least conceptual that the idea can he formulated into an experiment which can then be performed and repeated. Kenneth W. Ford, in his introduction to his college physics text, **Basic Physics**, states it this way:

*No idea in science survives because it is aesthetically pleasing, or mathematically elegant, or magnificently general ... The idea must weather the test of experiment, and not just one experiment. (p. 10)* 

Both creation and evolution seek to address the same issue, that of origins. How did life begin? How did we get here? The subject is historical in nature and deals with unique events in our past. As such, the field is not limited to scientists, although without some knowledge of science is required to understand the arguments on both sides. It is not useful or reasonable to simply make dogmatic statements defining "true" science as being in agreement with evolution.

A better way to proceed, and the proper way to compare the ideas of creation and evolution, is to talk in terms of models. A model is a conceptual framework, an orderly system of thought, within which one tries to correlate data and then possibly to predict new data. The scientific validity of models rests upon how well scientists and others can relate, by a series of deductions, diverse scientific data, like a jigsaw puzzle, to form a meaningful picture. Models are built on assumptions, most of which cannot be tested in the laboratory. The test of models lies in their ability to predict facts based upon the logical extension of those assumptions.

In this context two points need to be noted. Firstly, there is a large and growing body of sound scientific evidence (generally ignored or glossed over in textbooks) that contradicts the assumptions of evolution and calls into question its validity. Secondly, scientists working together have been able to start from the creationist principles and relate large amounts of data from all disciplines of science into a meaningful pattern.

It is almost certain that students today have never been exposed to any systematic presentation of the creation side of the story. But it is important to note that today most, if not all, of the scientists who are arguing for and studying about creationism were trained as, and at one time were, evolutionists. That is certainly true for me. In my over 21 years of education I was never once exposed to creation theory. My first exposure to creation science came in the form of a popular lecture on dinosaurs. I made it a point to study the subject further, and was surprised to find the wealth of material that there is.

Creationist and evolutionist scientists both attempt to relate the same data in different frameworks of assumptions, or models, often with drastically different results. An example of this is in the areas of historical geology and paleontology. In the evolutionary model geologists speak of rock strata as being pages of history representing hundreds of millions of years and fossils as being the contents of this history - tracing the development of life, Creation scientists interpret the same rock strata as representing various stages of a world-wide catastrophic flood with the stages of sedimentation forming the layers and the fossils representing the order in which the then living creatures were trapped.

Sometimes the science in creationism comes in the form of disputing and disproving the claims of evolution; sometimes it comes in demonstrating the elegance, simplicity and beauty of creation. In either case it has little to do with religion. Scientists who are creationists are so because it makes better science, not because it makes better religion.

Does religion enter into the debate? Certainly. But it enters in on both sides of the question. One can make a strong argument that evolution plays the same doctrinal role in the religion of secular humanism that creation does to the Bible-based religions, What is often true is that one takes a doctrinal stand and then seeks evidence to support that stand.

Some would argue that God does not have any place in science; that one cannot attribute supernatural causes to science. In the context of normal scientific endeavors, such as is being performed in thousands of laboratories, I would agree. But in terms of comparing the models of origins, I would argue that if the evidence points to the existence of a Creator then we are stupid and foolish to ignore that simply because of our prejudice. Most of the great scientists of history were God-fearing men and women. Many of them derived their motivation from the Bible. Yet they laid the very foundations and principles of modern science.

In the discussion that ensues I have attempted to compare the creation and evolution models side by side. Following the comparison I have made some observations concerning that aspect of the models. This is not an exhaustive treatment of the subject, but is more in the light of a review. Where I have quoted evolutionists I in no wise intend to imply that they doubt evolution.

### **BASIC DEFINITIONS**

#### Scientific Creation

The origin and development of the universe and of major categories of living things can only be explained in terms of a unique creative process which operated during a period of special creation through the agency of a supernatural being: a CREATOR. The only assumption that needs to be proposed is that there exists such a being who is capable of acting outside the known physical laws and performing creative acts.

Since the moment of creation things have been decaying; it takes great energy to maintain the status quo. The progression is towards decay, and time is destructive.

#### **Evolution**

All things have arisen through a naturalistic, mechanistic evolutionary process from a single source, which itself arose by a similar process from a dead organic world. The fundamental assumption is that random change coupled with probability and statistics acting over a long period of time only through processes observable today has brought about all that we see around us.

The progression is upward; from clouds of gas to stars; from non-life to life; from unintelligent life to intelligent life; from chaos to organization. Thus time is creative

#### Observations

The Laws of Thermodynamics are: 1) Energy/matter is neither being created nor destroyed; it is a constant. 2) Energy is becoming less useful for work, i.e. entropy must increase. Entropy is the measure of the disorder and decay of a system; the higher the entropy the greater the disorder and energy decay. Entropy can only be decreased by the application of work from outside the system, and this decrease is accompanied by an even larger increase in entropy in the system that produced the work.

Taken together, the First and Second Laws of Thermodynamics point to a time, indeterminate but nonetheless definite, when all things began. The universe is running down. If one were to go backwards in time you would come to the point at which the entropy in the universe is at its minimum. To go back beyond this point in time would require that at least one of these two laws be suspended. If that is the case then our certainty about all the other known laws of physics must also be suspended. The logical conclusion is that there must be someone capable of creating not only the matter and energy of the universe, but also the very laws by which the universe operates.

Empirical evidence certainly supports the proposition that time is destructive and not creative. For example, we have must astronomical empirical evidence for stars and other heavenly bodies dying; we have no empirical evidence for them being born.

There are sub-models within the creation model, just as there are those who argue big hang vs. steady state within the evolutionary model. The one I subscribe to is the **Biblical Model**. While it is not necessary to use the Bible as a part of creation science, it does serve to provide some information that has been and is being correlated very well with the data. I am convinced, on the basis of what I have learned in 18 years of studying creation/evolution, that the Bible is an accurate record. It makes sense, also, that God, who was the only eye-witness at creation, would leave some account for our benefit. I am also convinced, however, that one need not appeal to the Bible as the final authority in the matter of designing a creation model. As much as the Bible has shed light on the study of creation, the study of creation has shed light on the Bible.

### Atmosphere

#### Creation

The earth and all living things were created in essentially their present form. Time is no factor. The atmosphere at creation was basically the same as it is today - oxidizing. The Creation model predicts a heavy preponderance of oxides in iron, sulfates in sulfur and nitrates in nitrogen compounds.

#### Evolution

The earth developed slowly over long periods of time. Life forms developed from non-life forms by mechanistic processes, Le. basic organic chemistry. Long periods of time are essential The chemistry required to produce biologically important molecules requires a reducing atmosphere made up of methane, molecular hydrogen, ammonia, molecular nitrogen, water vapor and no free oxygen. The Evolution model predicts sulfides and carbonates of iron.

One of the basic tenets – perhaps the basic tenet – of theories concerning the origin of life, is that the first large organic molecules from which living things eventually evolved were formed in an atmosphere almost devoid of oxygen. A reducing atmosphere is deemed essential for the formation of these molecules – as it is, indeed, for the survival of the first postulated life forms.

(New Scientist, 19 February 1970)

# Observations

What we observe is an overwhelming abundance of oxygen in the earth. The mineral composition of rocks supposedly in contact with the early atmosphere indicate an oxidizing atmosphere. Dr. Joel Levine of Langley Research Lab stated in **NASA Special Report #225**, "New Ideas About the Early Atmosphere", an interview series, stated:

And according to our calculations the earth's atmosphere never contained methane and ammonia. And so the new idea here is that the main carbon gas in the atmosphere was carbon dioxide, not methane; the main nitrogen gas was molecular nitrogen, not ammonia; and the main hydrogen gas was water vapor, not molecular hydrogen.

**Origin of life experiments**: Stanley Miller has performed experiments by which he hoped to demonstrate how life might have originated. In these experiments he took a gas mixture of methane, ammonia, water and hydrogen (representing the so-called primitive atmosphere of the earth) and subjected it to electrical arcs simulating lightning. He collected the various organic compounds that resulted in a water trap. This experiment was considered to be a landmark since the results showed the presence of amino acids, which are the basic building blocks of proteins.

These experiments do not demonstrate the origin of life. While amino acids were indeed formed, they had to be quickly removed from the environment or else they would have been destroyed by the very process that formed them. It has been noted in the literature that the rate of destruction exceeds the rate of production. Moreover, there were many other organic compounds formed, some of which would have been deleterious to life forms. Amino acids and sugars combine to mutually destroy one another.

The problem with other origin of life theories, eg. Sidney Fox's proteinoids, is that the chemicals and chemical bonds required are highly specific. Random processes cannot possibly produce such complex and specific molecules.

**Biblical Model**: Over the period of the last 10 years or so much work has gone into developing a model of the early earth's atmosphere and climate with a fair amount of success. The major features of this model are outlined below:

One of the dominant features of this model is the proposed presence of a water vapor canopy high in the atmosphere or even above it. The best analogy we have today would be the Van Allen belt of ionic particles.

Computer studies have shown that such a canopy would be stable and would have the property of screening the earth's surface from harmful UV radiation while trapping heat. This would result in a significant "greenhouse" effect. Under these conditions the climate would have the following properties:

a) The average temperature of the earth would be increased by several degrees.

b) The heat would be distributed more uniformly over the earth's surface resulting

in a tropical or semi-tropical climate over the entire earth's surface and much milder weather patterns.

c) Smaller temperature differences would result in milder weather patterns, even to the extent of eliminating storms.

d) Less harmful radiation and a higher atmospheric pressure could result in longer life spans and size of plants and animals.

There is abundant evidence that a tropical climate with a high density of plant growth existed at one time over the entire face of the planet. The abundance of coal and oil deposits everywhere in the world attest to the profusion of vegetation. Currently there are experiments being performed to study the effect of higher atmospheric pressure and decreased harmful radiation.

# **Kinds and Genetics**

#### Creation

All present living species (kinds) of animals and plants have remained fired since creation, other than extinctions, and genetic variation in originally created kinds has only occurred within narrow limits. Similarity in form represents similarity in function, and design requires a designer.

#### **Evolution**

All present species emerged porn simpler earlier species, so that single-celled organisms evolved into invertebrates, then vertebrates, then amphibians, then reptiles, then mammals, then primates, including man. Such a scenario should result in a continuous spectrum of life forms with continuous transition porn one specie to another. Thus, similarity in form represents common ancestry.

### **Observations**

The term "kinds" used above is the creationist's attempt to redefine the term "species" since the use of that term has become heavily weighted and defined by evolutionists.

What we observe is stability within kinds (species). Current genetic experiments amply demonstrate thag and the fossil record also shows remarkable stability. Fossils of creatures which evolutionists claim to be hundreds of millions of years old are absolutely identical to presently known species.

There have been several models put forth, such as the "punctuated equilibrium" and "hopeful monster" models, in an attempt to overcome the lack of fossil evidence for evolution. It should be pointed out that these are purely speculative. Such speculations have been brought forth as attempts to deal with the problem of the lack of transitional forms. Transitional forms are still lacking, and the fossil record still supports creation better than evolution.

**Origin of life experiments**: One of the results of Stanley Miller's experiments turned out to be interesting in this context. In addition to having a chemical formula, amino acids also possess a property

called symmetry. The two possible symmetries for amino acids with the same chemical formula are left-and righthanded. In Miller's experiments 50'Fo of the amino acids produced were right-handed and 50% were left-handed, which is exactly the result one would expect. However, in living organisms there are no right-handed amino acids. It is impossible to conceive of how in a random, mechanistic process creating life in such an environment (50/50 ratio) there could be selectivity since symmetry has no bearing on chemical activity.

Statistical analysis: Is it statistically possible for amino acids formed on a random basis to form even the simplest proteins? The average protein consists of 400 amino acids arranged in a highly specific order. The protein

must also have a specific shape in order to perform its proper biological function. Even the simplest protein has over 100 amino acids, of which there are 20 that are found in organisms. To form a such a protein outside of a living organism, if it could be done, would be equivalent to forming a word of over 100 letters from an alphabet of 20. Even under ideal conditions this is statistically impossible.

DNA: DNA, which contains all of the genetic information, is made up of only four organic bases, but they are arranged in highly specific chains millions of units long. The bases are arranged in pairs forming two long strands in an helical shape. When a cell divides, the two strands of DNA unravel to form two single strands, one each in each of the new cells. The new cell quickly and accurately produces a new strand that is the complement of the current strand. Thus the design of DNA is such that it reproduces itself billions of times with incredible fidelity.

The complexity of DNA can further be appreciated. A sequence of three bases are required to specify the code for a single amino acid. (The four bases can be arranged in unique triplets in 64 different ways, enough to provide the code for the 20 amino acids used in the formation of proteins.) The average gene might contain 1500 base pairs, or 500 triplets. Some of the triplets are used as punctuation marks. This complexity is so great to defy any statistical estimate for even the simplest organism.

Enzymes and the DNA cycle: There are some processes which not only possess a statistical barrier that prevents them from occurring by mechanistic means but a conceptual barrier as well. One such conceptual barriers is the way enzymes interact with DNA in the DNA cycle. An enzyme is a protein synthesized directly from the DNA code that acts as a catalyst to produce specific chemical reactions in viva. Many of these reactions cannot possibly happen without the enzyme being present. The replication of DNA itself and the translation of its code requires highly specific enzymes which are themselves specified by the DNA code. Without these enzymes DNA cannot replicate, but these enzymes have no function otherwise and can only be produced by the DNA.

### **Mutations and Natural Selection**

Mutations are insufficient to have brought about any emergence of present living species. Natural selection works to keep a species pure. In general, mutations are bad.

Creation

#### **Evolution**

This has been the mechanism that has brought about the emergence of present complex forms. Mutations are seen to be good since they bring about change.

#### Observations

Mutations whether good or bad produce change in genetic material. These changes, however, can only bring out latent characteristics already there or delete information; they cannot produce novel structures. Evolutionists call this "microevolution", which is just another name for selective breeding. Microevolution, for example, can eliminate or alter wings on a fly, but it can never produce wings on lizard. Macroevolution, the production of novel structures resulting in a new species, has never been observed.

Mutations are random, not selective. As you read the evolutionary literature you will get the impression that they happen just in time, but it is not so. An organism cannot acquire a new characteristic or mutation because it wants it or even needs it.

Mutations that get passed on to the next generation are extremely rare: 1/100,000 or 1/1,000,000 per gene per generation. Of these, "good" mutations are also rare: perhaps 1/1,000. It is doubtful that evolutionists can point to even one known mutation that has produced a demonstrable improvement in a living organism.

There is an aspect of the Second Law of Thermodynamics that comes to bear in this context. DNA is the mechanism by which information is passed from one generation to the next. The Second Law as it is applied to information theory states that the information conveyed by a communicating system tends to become distorted and incomplete. Thus entropy measures the loss of information in a programmed system. Thus mutations can never add genes (information), only take them away.

**Enzymatic repair or DNA**: This is another conceptual barrier to evolution. Mutations occur when one or more of the bases are damaged by so outside agency, such as ultra-violet radiation from the sun. Although the skin is very well protected and does an excellent job of absorbing this radiation before it can affect genetic material, occasionally some damage is done. There are two forms of enzymatic repair, one or both of which is found in virtually all life forms, including bacteriophage and mycoplasmas. One type is called "excision repair" and involves four enzymes in a four step process:

- 1) **Endonaclease** recognizes the damage and makes an incision in the DNA strand in the vicinity of the damage.
- 2) A second enzyme, **repair exonuclease**, releases the damaged part from the strand.
- 3) **DNA polymerase** then synthesizes the missing segment. The correct sequence of bases in the strand is insured by base pairing with the complimentary bases in the adjacent undamaged strand.
- 4) The final step involves the formation of the proper chemical bonds by the fourth enzyme, **polynncleotide ligase**.

The entire repair is generally done in less than an hour. The absence of any of these results in the failure of the whole process.

#### MAN AND APES

### Creation

Creationism claims that there is no common ancestry between man and apes, or any other primate. Man is not just another animal raised to a higher level of consciousness. **Evolution** 

Man and apes share a common ancestor; he emerged gradually porn ape-like creatures.

# **Observations**

There is little or no evidence to indicate that man was every anything else than man. The issue has been much clouded by evolutionist claims and statements and artistic freedom in interpreting fossil remains. An example of this bias is found in the representation of Neanderthal Man and Cro-magnon Man. Both are typically represented as being sub-human, walking upright but with ape-like features. The facts are somewhat different. It is now recognized that the Neanderthal people suffered from pathological diseases (rickets or Vitamin D deficiency; arthritis) that gave the appearance of primitive features. In the case of Cro-magnon Man, his (their) skeletal characteristics fall well within the norms for modern man, so that he is identical to modern Europeans.

Another example of this type of bias is found in a **National Geographic** article by Mary D. Leakey entitled "Footprints in the Ashes of Time". The researchers had discovered two sets of footprints preserved in the volcanic ash at Laetoli in Tanzania which they dated at 3.6 million years old. They have attributed these footprints to a hominid, and the artistic renditions with the article show ape-like humans walking across the ash. But in the text it states,

... in the gray, petrified ash of the beds ... we have found hominid footprints that are remarkably similar to those of modern man. (p. 446)

"They looked so human, so modern, to be found in tubs so old," says footprint expert Dr. Louise Robbins of the University of North Carolina, Greensboro. "The best-preserved print shows the raised arch, rounded heel, pronounced ball, and forward-pointing toe necessary for walking erect. Pressures exerted along the foot attest to a striding gait." (p.452)

"Leg structure must have been very similar to our own." (p. 453)

(National Geographic Vol. 155, No. 4, April 1979, pp 445-457.)

On the basis of the evidence alone, one should conclude that the footprints are those of a human. It is only the bias of the researcher that concludes that these footprints belong to a hominid.

Lord Zuckerman (not a creationist), after 15 years of studying the fossil ancestry of man, has concluded,

"... no scientist could logically dispute the proposition that man, without having been involved in any act of divine creation, evolved from some ape-like creature in a very short space of time – speaking in geological terms – without leaving any fossil traces of the steps of the transformation. (**Beyond the Ivory Tower**, p.64)

Another prominent evolutionist, Dr. Colin Patterson of the British Museum of Natural History, in remarks at an open meeting at the American Museum of Natural History on November 5, 1981, pointed out the lack of evidence relating man to presumably closely related species. He noted that in studies comparing amino acid sequences in mitochondrial DNA among man, chimpanzee, orangutan, gorilla and gibbon that there was only a 7% match. He also pointed out that we should expect a 25% match by chance alone. (His comments were transcribed by Luther D. Sunderland and Dr. Gary E. Parker from tape recordings made at the meeting, and they were published in **ICR Impact Series**, No. 108, June 1982.)

### GEOLOGY

Creation

The earth's geological features appear to have been fashioned largely by rapid catastrophic processes or events that affected the earth on a global and regionul scale.

#### Evolution

The earth's geological features were fashioned largely by slow, gradual processes, with inpequent catastrophic events restricted to a local scale.

### **Observations**

**Biblical Model**: The two most important geological events were creation itself and a world-wide flood that was accompanied and/or followed by intense geologic and volcanic activity. The origin of the so-called geologic column lay in an attempt to correlated various rock strata from diverse parts of the earth in this context. There is much evidence to support sedimentation and fossilization as being a result of a massive and world-wide flood. The splitting up of the continents and subsequent buckling up of mountains was a direct result of the flood. Volcanic eruptions occurred on a large scale. Erosion of valleys, such as Grand Canyon, may be attributed to the erosion of weakly consolidated sediments by runoff following the flood. Caves were formed by horizontal groundwater flow before the present equilibrium was established, and glaciation occurred as a result of the drastic change in the atmosphere and climate.

**Fossil evidence**: Conventional ideas are that fossils were formed over a long period of time. There are, however, many fossil deposits that provide evidence of rapid and massive burial. One such site is a clam layer near Glen Rose, Texas. Millions of clams were buried intact and unsplit in a single, thin, extensive layer. Most of the clams were closed, an indication that they were buried alive, since their muscles hold the shells closed.

Articulated skeletons, mummifications and fossil graveyards that occur world-wide also speak of rapid burial. Many fossilized animal skeletons show that the muscles and ligaments were intact at the time of burial. On the other hand, of the millions of buffalo that lived on the Great Plains none have become fossilized, because the normal process of death and decay occurs too rapidly.

Other fossil remains attest to the violent wind and water forces that were present. Bird fossils are often intact, except that their necks are broken. Shark fossils five feet long were found pressed flat to the thickness of a quarter of an inch. After having been caught in sediment-laden water so thick they could no longer swim, they were buried so rapidly the weight from above pressed them flat.

**Coal and oil**: The enormous deposits of coal and oil speak of incredible quantities of vegetation buried in the same place quickly. Laboratory experiments have demonstrated that plant material can be converted into coal and oil-like products quickly under very moderate conditions. In many coal fields the coal contains large, mummified bark sheets which are unlike the fine-textured debris deposited in modern swamps and peat-bogs. Some of the coal layers are quite extensive. Coal layers in the Pennsylvania System can be traced continuously through at least seven mid-West states, from Oklahoma to Kentucky, and possibly as far east as Pennsylvania and Maryland. The immense pressure in many oil wells also is evidence that they were formed relatively recently.

Dr. Steven A. Austin of the ICR has done extensive studies of coal beds in Indiana and Kentucky. He is of the opinion that the basic material for the formation of coal (and oil) came from immense log mats that were formed during the flood. The abrasive action of the logs jostling against each other stripped them of their branches and bark. This mass of material then settled to the bottom where they formed extensive peat layers that were subsequently buried by sedimentation. The high pressure of sediment and water compressed the peat and sealed it from atmospheric oxygen which in turn allowed the process to continue.

**Strata and the flood**: The very nature of many rock strata, their purity, thickness, uniformity, extent (some extend for hundreds, even thousands, of miles), argue for rapid deposition by floods of

enormous proportions. Tree trunks occasionally penetrate vertically through several sedimentary layers, showing that the tree was completely encased before it had a chance to rot and fall.

The so-called "Pre-Cambrian" rock is the base that the deposits were built upon. Successive layers were deposited as the flood waters surged and receded. The first deposits to be laid down were the dense, insoluble

material. Often successive layers are sorted by grain size and density. In some locations, such as the Grand Canyon, scientists have been able to relate the sequence of the strata to the stages of the flood.

**Mount St. Helens**: The eruption of Mount St. Helens in 1980 has given geologists a rare laboratory in which to study geological processes. As taken from lecture notes by Dr. Steven A. Austin, Chairman, Department of Geology, ICR, for a lecture delivered July 21, 1988, four of the more important discoveries are summarized below:

1. **Rapidly formed stratification**. Up to 600 feet thickness of strata have formed since 1980 at Mount St. Helens. Conventionally, sedimentary laminae and beds are assumed to represent longer seasonal variations, or annual changes, as the layers accumulate slowly. Mount St. Helens demonstrates that the stratified layers commonly characterizing geological formations can form very rapidly by flow processes. It has long been the contention of creationists that fossils can only be formed under conditions of rapid stratification and that the environment in which fossils are found are testimony to such conditions.

2. **Rapid erosion**. Mudflows from Mount St. Helens were responsible for the most significant erosion. A mudflow on March 19, 1982 eroded a canyon system up to 140 feet deep in the headwaters of the North Fork of the Toutle River Valley. The little "Grand Canyon of the Toutle River" is a one-fortieth scale model of the real Grand Canyon. The small creeks which flow through the headwaters of the Toutle River today might seem, by present appearances, to have carved these canyons very slowly over a long period of time, except for the fact that the erosion was observed to have occurred rapidly. Creationists have contended for years that the Grand Canyon was formed rapidly, not by the Colorado River, but by the world-wide flood as the flood waters began to recede.

3. Upright deposited logs. The landslide-generated waves on Spirit Lake stripped the forests from the slopes adjacent to the lake and created an enormous log mat made up of millions of prone floating trunks that occupy about two square miles of the lake surface. Careful observation of the log mat indicates that many trees float in an upright position with a root ball submerging the root end of the trunk while the opposite end floats out of the water. These trees, if buried in sediment, would appear to have been a forest which grew in place over hundreds of years, which is the standard geological interpretation for the upright petrified "forests" at Yellowstone National Park.

4. **Peat layer in Spirit Lake**. The enormous log mat floating on Spirit Lake has lost its bark and branches by the abrasive action of wind and waves. Scuba investigations of the lake bottom showed that water-saturated sheets of tree bark are especially abundant on the bottom of the lake. A layer of peat several inches thick has accumulated. The Spirit Lake peat resembles, both compositionally and textually, certain coal beds of the eastern United States which also are dominated by tree bark and appear to have accumulated beneath floating log mats. Thus, at Spirit Lake we may have seen the first stage in the formation of coal.

# Time

Creation The inception of the earth and of living things may have been relatively recent. There is no **a priori** reason for not considering the many scientific evidences of a relatively recent creation.

#### **Evolution**

The inception of the earth and life must have occurred several (many) billion years ago. Long eons of time are seen as an essential element.

# **Observations**

The age of the earth is one of the most hotly contested areas in the debate between creation and evolution. This is the area where evolution is the most vulnerable. At the same time we would like to think that the earth is billions of years old since it lends an air of stability and certainty to the distant future.

There are two sides to this argument. Firstly, is the earth/universe really that old? All methods of dating the earth are inferential. There is no direct method of measuring the age of the earth since there are not starting points. For example, radiometric methods compare the ratios of isotopes of two different elements (parent and child) in an attempt to remove that uncertainty. But the comparison of dates derived from different isotopes rarely, if ever, agree. Moreover, the resulting curves can just as easily be explained in terms of mixing models as in terms of age.

Other dating methods, rarely acknowledged by evolutionists, point to a much younger earth. Such dating methods include helium in the atmosphere, decay of the earth's magnetic field, thermodynamic equilibrium (cooling of the earth), plus many more.

The second side to the argument is: Is an old earth sufficient? It is a doctrine among evolutionists that anything can and thus will happen. Events that are impossible will somehow happen; barriers that are insurmountable will somehow be overcome.

While it is true that those who support the Biblical Model of creation believe in a recent creation, thousands and not billions of years, the creation model in general is independent of age of the earth. Thus it is a moot point.

### CONCLUSIONS

In this brief outline 1 hope that I have presented some information that will cause the reader to consider carefully the claims of creation and of evolution. By way of review, let me summarize this way: In order for evolution to be true there are a series of insurmountable barriers that must be overcome, each one higher than the one before.

#### The origin of Life:

There is no evidence of a reducing atmosphere in the early earth. Experiments under carefully controlled laboratory conditions produce no significant results.

#### **Genetics:**

Amino acids produced in chemical experiments are equally left- and right-handed, but only left-handed amino acids are biologically used.

It is statistically impossible to produce even the simplest protein by random processes. The function and complexity of DNA is such that it cannot be synthesized outside of a living cell.

#### **Mutations:**

The design of all life forms is such to avoid, resist and repair mutations and thus provide great stability.

Mutations are an insufficient mechanism for producing large-scale changes in a life form.

On the positive side of the ledger, in those areas where scientific knowledge and not just speculation can be brought to bear, scientific creation can correlate and organize the information exceptionally well.

It is understandable that most people want to avoid admitting to divine intervention. Many of the leading evolutionists today do not even recognize the existence of God. To them evolution was the great scientific "discovery" that has freed men from the shackles of religion and superstition in which they were bound. Accepting the arguments of creationism involves much more than changing their mind about a scientific idea. For most of us it would at least involve re-thinking our opinions and attitudes toward God and His creation. That is a challenge that must be taken seriously.

The psalmist says, "The heavens declare the glory of God; and the firmament sheweth his handiwork." (Psalm 19:1) It is a pity that our culture is being robbed of the wonder of creation.

Thou art worthy, 0 Lord, to receive glory and honour and power: for thou hast created all things; and for thy pleasure they are and were created.

(Revelation 4:11)

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