1980

Evidence from Science and Tradition Supporting a Two-Model (Evolution/Creation) Approach to Teaching the Origin of Life

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EVIDENCE FROM SCIENCE AND TRADITION SUPPORTING A TWO-MODEL (EVOLUTION/CREATION) APPROACH TO TEACHING THE ORIGIN OF LIFE

by

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A thesis submitted in partial
fulfillment of the requirements for the
degree of Master of Arts in Teaching at
Mankato State University

Mankato, Minnesota
June, 1980

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This study gathered material presenting flood traditions in agreement with data concerning models of origins, selected material for supplementing classroom materials, and determined public opinion as how the subject of origins should be taught in public schools.

Surveys recommend a two-model (evolution/creation) approach be taught within scientific limitations in public schools. Materials are available to promote this approach legally, fairly, and scientifically. Because of the evolution model's inadequacies, a reinterpretation of equivalent data allowing for catastrophic universal flood concepts is needed. Part of this reinterpretation may be supplied by the canopy model, as well as the many worldwide flood traditions.

In conclusion, evidences from science and tradition demonstrate to be equally applicable to both the creation and evolution models of origins. It is recommended from viewpoints of practical science and valuable educational practice, that all public schools utilize a two-model approach to origins whenever necessary.

175 pp.

Date May 22, 1980

This thesis has been examined and approved.

Examining Committee:

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Chapter 1

THE PROBLEM

Introduction

Grasping a satisfying worldview of life is important for any individual. A person's innate childlike curiosity demands a comfortable worldview; a philosophy that eventually leads to a mature scientific position toward the world, including the ability to reason creatively in solving problems. Consequently, what one comes to realize about his worldview will certainly condition what one comes to accept about his own personal identity, individual goals, life's purpose, and ultimate destiny. Contentment with a solid worldview is, indeed, indispensable for true mental health. Living daily experience requires it.

One way to grasp a satisfying worldview is in terms of ultimate origins. Two worldviews dealing with origins are evolutionism and creationism. Later, it will be demonstrated how these two worldviews are not only contradictory by definition, but also impossible to prove scientifically. Both worldviews, as in all steps taken in life, are only accepted by faith. This report shows that this faith is not necessarily "blind" as in the existential sense of the word (120:46-53), but seemingly "predictable" based on models from observation. Because faith concerning origins forms a

worldview of life, it is vitally important for every person (in the interest of his own mental health) to deal with the subject of origins. One who fails to deal with life's origins has no foundation of the past on which to form concepts for the future.

This report considers worldviews concerning life's origins, including many of the philosophical, psychological, and scientific implications involved.

Statement of the Problem

The purpose of this study was to: (1) gather material and information from selected sources that present flood traditions in agreement with the model of special creation as an alternative to the model of nucleogenetic evolution, (2) select material suitable for supplementing current classroom science materials, and (3) conduct a random telephone survey to determine public opinion of the central question:

> Should evolution only, creation only, or both evolution and creation be taught in public schools?

Importance of the Problem

Current classroom materials normally face the subject of origins in one of two ways.

Some classroom materials oppose the subject of origins by omitting it completely. This avoids controversy, but only at the expense of repressing curiosity and

inventiveness. Skills are important, of course, but not at the cost of the broader aim of real understanding.

Other classroom materials treat the subject of origins by slipping evolutionary concepts into the written matter. Most science textbooks now available contain differing amounts of evolutionary bias (42:38) (112:126-127). While this approach satisfies many of the not-so-critical, it falls short of answering several scientific objections. Accordingly, failure to deal with these questions prevents true scientific understanding of origins.

Evolution, taught from a non-theistic point of view, teaches a metaphysical viewpoint which sees man as essentially no different from animals. The creationist metaphysical view (i.e., that man is essentially different from animals) is equally as viable a position to hold, and students have a right to know it. Adler suggests that "the image we hold of man is crucial, because it directly affects how we will treat each other (1)."

Certainly, evolutionary notions influence modern youth through a media explosion their parents never dreamed possible. But evolution is customarily the only model of origins allowed in elementary and secondary science books, and "since pupils at this learning level are not able to evaluate the model, it is generally accepted without question (112:13, 15)."

Whitcomb has suggested that the apostle Peter even wrote prophetically about a day when men would adopt a "blind adherence to the doctrine of total uniformitarianism (130: 56-59)." The Biblical passage to which he referred to says:

> . . . knowing this first, that in the last days mockers shall come with mockery, walking after their own lusts, and saying, "Where is the promise of his coming? for, from the day that the fathers fell asleep, all things continue as they were from the beginning of the creation." For this they willfully forget, that there were heavens from of old, and an earth compacted out of the water and amidst the water, by the word of God; by which means the world that then was, being overflowed with water, perished (II Peter 3:3-6);

Whitcomb says this is a prophetic, yet explicit, description of the modern character of the world. He goes on to suggest that the magnitude of these past events are especially felt in the verse that follows:

> but the heavens that now are, and the earth, by the same word have been stored up for fire, being reserved against the day of judgment and destruction of ungodly men (II Peter 3:7).

It has been said that "never has youth been obliged to take greater interest in what science on the one hand and the wisdom of the ages on the other have to offer for the future welfare of mankind (83:7)." But in view of the present heavy emphasis of uniformitarianism in science in the public schools, it is all the more urgent that young people understand that there is more than one viewpoint of origins.

Limitations

This study was limited to: (1) a search for books and other classroom materials that would direct or supplement

a two-model (evolution/creation) approach to origins in public schools, and (2) a random telephone survey of fifty respondents in the Mankato-North Mankato area of southern Minnesota to determine public opinion of the central question:

> Should evolution only, creation only, or both evolution and creation be taught in public schools?

Results of the telephone survey were mailed to the Institute for Creation Research Midwest Center, Box 75, Wheaton, IL 60187, to be included in a continuing regional (14-state) survey. In turn, the regional survey supplements a similar national survey.

Definitions of Terms

There is need of a consensus on terminology in regards to origins. It is too easy to use identical words to mean dissimilar things (40:3). This is especially a problem with textbook definitions and suppositions.

Evolutionism is either explicit or implicit in practically every textbook available today, in many fields (94:176). Nelkin (42:38) charts several discrepencies in passages of high school biology texts challenged by the California Board of Education; all owing to definitions and assumptions based on evolutionary dogmatism. Real consensus of terms continually hampers reasonable debate among scientists in regards to origins. Discussion can only resume

after considering the source; that is, what was initially and honestly intended.

Therefore, against this introductory background, the following definitions are formulated. Most are adapted from Moore's definitions (171:4-5) and offered with hopes that consensus will be attained in terminology used in all discussions of origins.

Assumption (postulate). A statement taken for granted and not tested directly during particular scientific activity. Terms with directly observable referents may or may not be used.

Fact. An object and/or event in space-time.

Description. A statement about some object and/or event in space-time. (The lowest level of scientific explanation.)

Observation. A perceptual experience of a fact, or a written or spoken record (as communication to self or another) of an awareness (perception) of an object and/or event in space-time. (Within the realm of science, observations must be correct, unbiased, and repeatable.)

Problem. An interrogation or stated perplexity for which an answer is sought; most properly expressed in question form.

Hypothesis. A tentative (untested) answer to a problem; most properly expressed as an assertive statement in form suitable for testing.

Life. The condition which distinguishes animals and plants (both varying in degrees of complexity, from simple one-celled organisms to the more complicated multicellular organisms) from inorganic objects (including molecules, amino acids, and particles) and dead organisms.

Model. A physical object designed to show analogical representation of some larger object(s) and/or event(s); or a conceptual pattern involving listed statements about imaginary objects and/or events and supposed relationships, especially associated with concepts of origination and generation.

Evolution model (evolution). An explanatory belief system based upon eternal existence of matter from which have come an ascending series of elements by nucleogenesis, changes by stellar evolution of "young" stars into "old" stars, galaxies, planets (especially the earth with life that appeared spontaneously through molecular evolution followed by organic evolution, including human evolution). (Ideas have to do with origination of order out of disorder and integration of more complex patterns out of least complex patterns.) (General definition: change.)

Evolutionism. Specifically, the philosophy of evolution.

Creation model ([special] creation). An explanatory belief system based upon existence of an eternal (omnipotent) Creator who established a completed, finished, and functional

universe in all aspects regarding elements, galaxies, stars, planets (especially the earth with mutually exclusive groups of animals and plants.) (Ideas have to do with conservation of known conditions; yet, changes of decay and degeneration are evident and easily documented.)

Creationism. Specifically, the philosophy of creation.

Genesis model. The Genesis account of creation and/or worldwide deluge (and/or confusion of tongues).

Canopy model. The concept proposing that the antediluvian earth was originally enclosed within a spherical canopy of water vapor (and ozone) that intercepted (or diffused) immediate solar and cosmic radiation; producing a "greenhouse effect" that stabilized global weather conditions (barometric pressure, temperature, humidity, etc.) to form a subtropical climate (even in extreme latitudes), and as a result, all forms of life lived to great ages.

Global flood model. Prototype of flood geology assuming that fossils, strata, etc., are direct results of a catastrophic worldwide flood.

Theistic evolution. Attempt at adapting both the Scriptures and evolutionary geology to a mutual compromise. (Note--"progressive creationism," the concept that evolution occasionally requires a creative shot-in-the arm from the Creator, is not considered substantially different from theistic evolution to be excluded from this definition.)

Catastrophism. An explanatory belief system based upon worldwide catastrophic upheaval(s) and/or planetesimal encounters, that highly accelerated process rates operating within uniform laws.

Uniformitariansim. An explanatory belief system based upon uniform operation of natural laws and processes.

Humanism. The belief that man was not supernaturally created, but is a product of evolution, and that he is not under the control of any supernatural being(s), but has to rely on himself and his own powers to shape his destiny. (Humanism is a non-theistic religion.)

Science. An interconnected series of concepts and conceptual schemes that have been developed as a result of experimentation and observation and are fruitful of further experimentation and observation. (Science is limited to the study of nature; that is, study of matter and energy, because of limiting principles of being empirical, quantitative, mechanical [materialistic], and corrective.)

Scientific law. A repeatedly tested and well-supported or substantiated generalization of seemingly universal application regarding a certain set of facts. (A level of scientific explanation between description and scientific theory.)

Scientific theory (such as Molecular-Kinetic Theory, Modern Atomic Theory, Nuclear Theory, Gene Theory, etc.). A list of postulates or assumptions (theoretical) usually

specifying existence, relationship, and events concerning an imaginary entity (such as an atom, gene, or molecule) whereby a meaningful "explanatory system" for a range of rather diverse facts is made available. (Postulates are based upon prior observations or relevant objects and/or events; and, in turn, are bases of predictions testable by experience, directly or indirectly.) (The highest level of scientific explanation.)

Chapter 2

REVIEW OF RELATED LITERATURE

Scientific Method of Inquiry

Weisz offers a very comprehensive and clear analysis of the scientific method (62:4-8) briefly outlined by Wolfrom (197:84) in five basic steps.

First Step:	Observation--In addition to being correct and unbiased, observations must be repeatable.
Second Step:	Problem--Questions are asked about the observation to define a problem. The questions asked or problem proposed must be relevant and testable.
Third Step:	Hypothesis--The scientist guesses what the answer to the question or problem may be.
Fourth Step:	Experimentation--The means by which the scientist tests the validity of the hypothesis, and obtains direct evidence. If really convincing, unquestionably reliable experimental evidence is available in support of a hypothesis, a theory is formulated.
Fifth Step:	Theory--A hypothesis for which corroboratory evidence has been obtained.

Figure 1

The Steps of Scientific Method

In itself, knowing the scientific method does not make a first-rate scientist, any more than knowing how to play a piano makes a concert pianist. But like the concert pianist, the scientist keeps a sensitive mind as inventive and imaginative as any other kind of artist. Scientific method places limits on this sensitivity. Weisz concludes:

> Anything to which the scientific method can be applied, now or in the future, is or will be science. Anything to which the method cannot be applied is not science (197:8).

Concerning the limits of science, Moore elaborates:

> Early scientific "greats" recognized that science was properly limited as being, 1) empirical, or observational and based upon sense perception; 2) quantitative, or centered on measurements representative in numerical symbols; 3) mechanical (materialistic), or organized according to machine-like models; and 4) corrective, or designed so that all aspects, beyond basic presuppositions and postulates, are subject to re-test and examination (171:3).

If the pioneering scientific greats (e.g., Newton, Galileo, Kepler, Maxwell, Kelvin, Einstein, etc.) had one knack in common, it was their ability to theorize within the limits of science, or in other words, "play by the rules of the game." The game of science is governed by its rules of limitations. And for the most part, these men recognized the limiting principles of science; particularly, that it is limited against the presumptions of Evolutionism.

In dealing with models of earth history (and they may be considered to number in the hundreds), the scientific method is not applicable. Since history cannot be repeated, it is out of the question to prove scientifically what model

is correct (205:8). It is plainly not scientific to consider models of "how things began." Such models lack the essentials of (1) observability, (2) repeatability, and (3) testability by experimentation. Consequently, a judgment as to what to believe must be formed on the observation of which model resolves the data best, and such a judgment may be largely subjective (205:9).

Before a decision is made as to which model best explains the data, the models of earth history must be defined. Hundreds could be considered. But because of their different inconsistencies, absurdities, and similarities, these hundreds of models actually form variations of only two general models of earth history: the evolution model, and the creation model.

The Two Models

According to Morris, "there are basically only two possible models for earth history, though there are variations within each (205:3)." (For example, Hinduism, Buddhism, and other similar worldviews, by definition are only variants of the evolution model.) Because there are only two possible earth history models, Morris condenses them in the following way.

"The evolution model is: 1) naturalistic, 2) self-contained, 3) non-purposive, 4) directional, 5) irreversible, 6) universal, and 7) continuing (206:11)." Evolution's

rival, the creation model, involves "a process of special creation which is: 1) supernaturalistic, 2) externally directed, 3) purposive, and 4) completed (206:11)."

Presently, there is only a one-model approach of evolution being taught in American public schools. Evolution is unarguably taught as "science," and creation is openly criticized as "religion." In public schools, it is legal to teach science, but equally illegal to teach religion as such. Consequently, few teachers want to risk a legal confrontation in this area.

Because the creation model does not adhere to the rules of scientific method, creationists openly admit the religious nature of creation. But is the creation model any more religious, or any less scientific, than the evolution model?

Science and Religion in the Two Models

Evolution Not Observed

The evolution model does not adhere to the steps of scientific method. So by definition, whatever evolution is considered to be, it is certainly not science.

Theodosius Dobzhansky, famous evolutionist and renowned geneticist at Columbia University, and later at the University of California, Davis, has asserted: "The occurrence of the evolution of life in the history of the earth is established about as well as events not witnessed

Evolution	Creation
Naturalistic--"The entire universe is considered to have evolved by natural processes into its present state of high organizational complexity. Since natural processes are believed to operate uniformly, such evolutionary developments are interpreted in an overall context of uniformitarianism (205:3)."	Supernaturalistic--"A period of special creation in the beginning is defined during which the basic systems of nature were brought into existence in completed functioning form right from the start. Since "natural" processes do not accomplish such things at present, these creative processes must have been "supernatural" processes (205:3)."
Self-Contained--Evolution is explained without need of a creator, planning agent, or any other external vital force directing the evolutionary process.	Externally Directed--Supernatural processes require an omnipotent, transcendent creator.
Non-Purposive--The universe somehow originated in a condition of randomness becoming more ordered with aeons of time.	Purposive--The universe was created in perfect order for the purpose of glorifying its master designer. Aeons of time are not required, and a recent creation (less than 10,000 years ago) is likely.
Continuing--Natural laws and processes are in operation at this time, though they are normally considered to be operating too slow to be observed.	Completed--Once the work of creation was completed, all creating processes were terminated. Conserving processes replaced creative processes as the means of maintaining the universe, and allowing it to fulfill its purpose.
Irreversible	Irreversible
Universal	Universal

Figure 2

Major Differences of the Two Models
Evolution Vs. Creation

by human observers can be (21:1091)," Dobzhansky clearly states that evolution cannot be observed. Roth says that, "if it is agreed that science describes observed facts, then, of course evolution fails again, because no one has observed life originating spontaneously or one major type of organism changing into another (116:24)."

Specificity of Kinds

Many times, evolutionists claim that evolution has been observed (16:70-86) (42) (57:25) and is accordingly proven. For example, insect resistance to DDT (30:44), bacterial resistance to antibiotics (46:11-12), and cattle-bison hybrids (103:163) are often cited. In another case, industrial mellanism in peppered moths is called, "the most striking example of evolution ever seen by man (6:90, 99-100) (199:8)." But Wolfrom points out that "what has actually been noted is limited variation and occasional speciation within the basic animal and plant kinds (197:85)."

Evolutionists are usually quick to point out so-called new species under the assumption that small changes in variation lead to large changes postulated by the evolution model. However, such extrapolations are totally unjustified, because such colossal changes are not observed. In fact the Austrian monk, Gregor Mendel (in his experiments with garden peas), only noticed variation within natural species. Nelson relates:

> Enthusiastic over his discovery, he wrote a paper on the subject and read it before the Natural History Society of Brunn, Austria, in 1866. At that time scientific men were all absorbed with Darwin's theory of evolution by slow, gradual, minute additions, and such information concerning the heredity of plants and animals as Mendel had discovered did not fit in well with Darwin's teachings. Mendel's discovery, therefore, was ignored completely, and it lay buried and unknown for thirty-five years. Not until the year 1900 was it brought to light when it was rediscovered independently by de Vries and Correns.
>
> The principles and laws of heredity discovered by Mendel, when they became thoroughly known, completely changed the old ideas of scientists in regard to heredity. They revolutionized the notion of evolution which was popular in Darwin's day. Bateson, the famous British biologist and student of Mendelian heredity, said that Darwin would never have written the Origin of Species if he had known Mendel's work. Not only this, but Mendel's discoveries went far to destroy the faith of biologists in evolution itself (103:103-104).

Evolution enjoyed a renaissance of acceptance during the thirty-five years that Mendel's paper was on the shelf. But today, the laws of Mendel (i.e., "Mendelism") are so universally accepted, they are often almost synonymous with the "principles of genetics." Mendel's laws conclusively show that

> 1) descent from generation to generation is orderly rather than disorderly, 2) variation takes place within natural species as a result of different combinations of materials already contained in the species, and 3) no new species is ever added (103:121).

Resistant insects and bacteria are still the same insects and bacteria, and not new species. Hybrids between actual species (e.g., cattle and bison) revert to parent species (103:162-166). And peppered moths are still peppered moths. No new genes are ever produced (118:112). "Terms such as

'adaptation,' 'genetic variation,' and 'gene frequency' would clearly be more appropriate and more descriptive (197:85)."

The Tragedy of Mutation

Thirty-five years after Darwin published his Origin of Species, Mendel's work was published. But Mendel's work was altogether ignored by Darwin and the other scientists of that time, because the scientific community accepted the idea of the inheritance of acquired characteristics (LaMark's hypothesis). For example, it was believed that if a man strengthened his right arm, such as a blacksmith does with a hammer, his son will also have a strong right arm. And scientists of that day also thought that if a colored rabbit's blood were injected into a white rabbit, an offspring of mixed color would automatically result.

"Today we know that Mendel was right; that acquired characteristics are not inherited, and inheritance is controlled by the genes found solely in the germ cells (the eggs, or ova, and the spermatazoa) (82:27-28)." But committed as they are, evolutionists did not give up on Darwin's model. They produced a new mutation hypothesis, and thus, the movement of Neo-Darwinism was born.

"The mutation theory was largely developed by Hugo de Vries, in his work on the evening primrose, and T. H. Morgan, experimenting with the fruit fly (97:52-53)." These men observed new characteristics in certain species. On

this basis, they concluded that not only were these characteristics heritable, but also favorable. It is thought that favorable mutations create new microorganisms with new genes not present before (103:177). Then it is supposed that if a very large number of these favorable mutations linked together, a distinctly more complex form of life would result.

The serious objection, it can be argued, is that a true mutation never seems to be beneficial (97:53). "A great many mutations have proven to be nothing but recessive Mendelian characters which suddenly appeared when the right parents happened to come together (97:53)." Martin admitted: "It is doubtful that of all the mutations that have been seen to occur, a single one can definitely be said to have increased the viability of the affected plant or animal (39:100)." However, evolutionists insist that perhaps one in ten thousand mutations are beneficial (82:29-30). Even such a small number is not being observed. But the claim is made, because without the claim, evolution becomes impossible.

At best, it must be assumed that mutations have a deleterious character (19:150), and almost all are harmful (202:174). They would only cause disorder in the random system that evolution postulates.

Probability of Life by Chance

The Primordial Atom, and the First and Second Laws of Thermodynamics

In a modern world, it is often accepted that the creation of the universe originated on the order of 10 billion years ago with the explosion of one superheavy (density greater than 10^{25} g/cm^3), superhot (temperature in excess of 10^{16} ^{o}K) atom (51:7B). The assumption that matter cannot be created from nothing limits science to this popular conclusion. But this point of view almost echos the primitive myths of the Chinese, Hindus, and other ancient cultures. Freund wrote that:

> Like the primitive myths, the scientific hypotheses of the creation of the universe limit themselves to a "beginningless beginning." Scientists never conceive of a universe in which is only nothingness; something is already in existence from which the cosmos takes form. So the true problem is not faced by any theory (28:179).

According to the First Law of Thermodynamics, it is no less miraculous to create a lone primordial atom from nothing than it is to create the completed universe. As far as can be observed, a universe cannot create itself. Therefore, real creation, that is from nothing (ex nihilo), becomes a matter of belief and not science. Aquinas concluded to his Moslem critics:

> Holy Scripture confirms this truth, saying: "In the beginning God created heaven and earth (Gen. 1:1)." For to create means nothing else than to bring something into being without any pre-existing matter.

> This truth refutes the error of the ancient philosophers who asserted that matter has no cause whatsoever. . . . Creation, therefore, is neither motion or a change (106:53-55).

All "motion and change" creation models slip the inevitable question of first cause (i.e., what caused the first atom). They would rather assume that the universe always existed, and thus, did not have a beginning. Proponents of the "steady state" universe propose such a universe that is continuously creating itself. But of course, this is incomplete from what is being observed (214:29-33).

A universe where available energy decreases is observed in accord with the Second Law of Thermodynamics. Clearly, total energy must be conserved, but according to the Second Law, it continually moves toward increasing entropy (disorder). Ultimately, if this trend persists long enough, a condition of total energy disorder (often called the "heat death of the universe") would develop. But doesn't this trend imply creation and a creator? Yes, because according to Morris:

> The Second Law implies that, if present processes continue, the universe will become completely "dead" in time. If it were infinitely old, it would already be dead. Thus, in its present form, it must have had a beginning! The First Law, however, indicates that it could not have created itself. It must, therefore, have been created by a Creator outside itself and by processes of creation which are not now occurring, exactly as the creation model postulates (205:14).

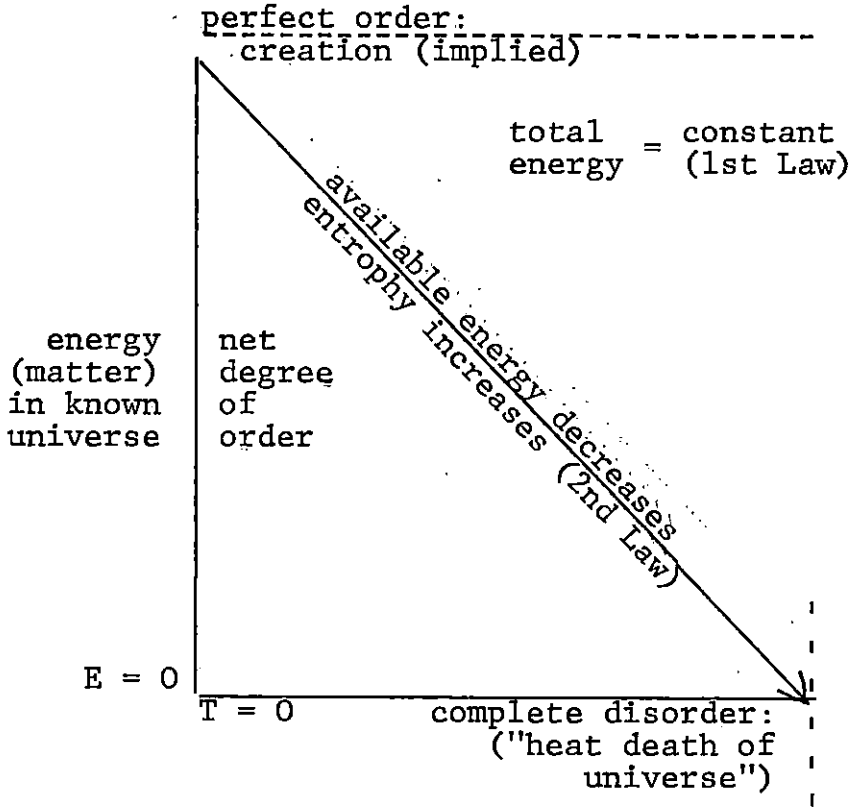


Figure 3

Laws of Thermodynamics
Implications

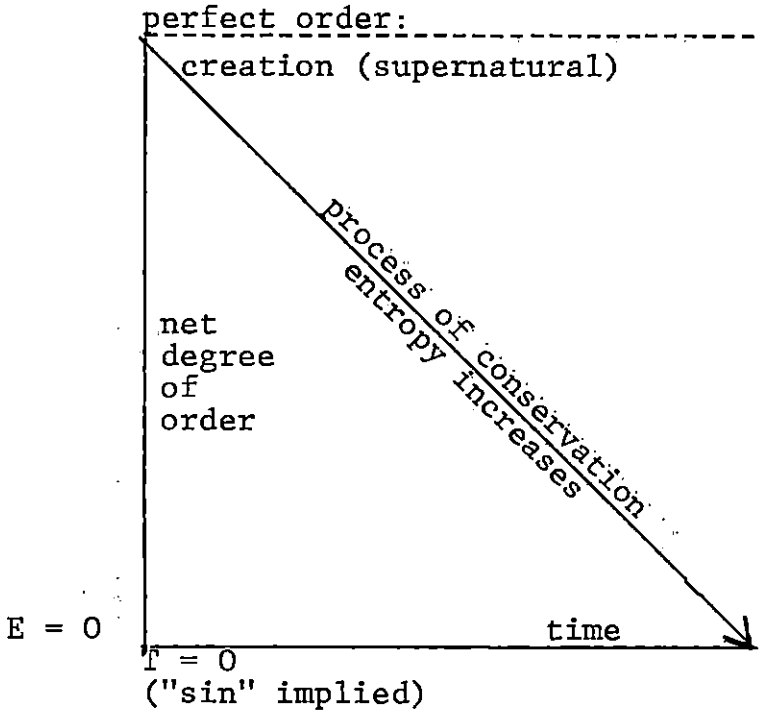


Figure 4

Entropy and the Creation Model

It is not the scope of this report to further discuss the laws of thermodynamics, though scholarly material is at hand (89:55-56) (99:222-227) (137:226-227) (139) (140) (158) (167:209-210) (196) (205) (206:18-46) (214:3-6). The laws of thermodynamics are the most tested and accepted in science. However, it can be shown how the laws of thermodynamics contradict evolution; a fact that evolutionists ignore for the most part (167:209-210) (205:21) (206:18-46).

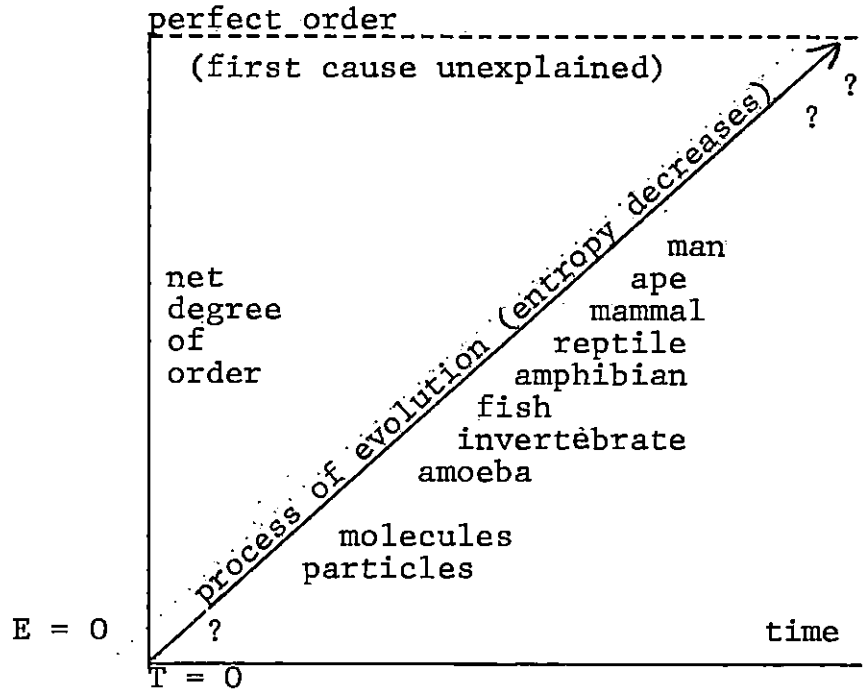


Figure 5

Entropy and the Evolution Model

In a manner of speaking, evolutionists propose that order was gotten out of a primordial fireworks display. Fireworks (disregarding where they were obtained) really only produce pretty colors, loud noises, burnt gunpowder, and shredded ashes. Would cosmic fireworks, no matter how spectacular, stand any better chance of making order?

This report does not specifically disprove the naturalistic astronomical origins models, though they have been refuted (28:180-200) (107) (127-128) (131:35-85, 91-98) (134:176-181) (135:207-208) (184:55-57) (214). But it must be emphasized that for all practical purposes, order cannot

be gotten out of disorder; no matter how much time is assumed or explosives used. Order comes from design, not accident. And to assume that life developed naturally from nonliving chemicals certainly underestimates the pattern and complexity of living organisms.

The Statistics of Life

Kofahl and Segraves observe that,

> In every organism all the properties and functions are defined and regulated in accordance with coded information contained in the DNA (deoxyribonucleic acid) molecules of the genes in the cell nuclei, and apparently also in DNA contained in at least one other kind of cell structure, the mitochondria (202:64).

And Taylor estimated that there are, "at least five billion different kinds of DNA molecule combinations in the forty-six chromosomes of man (125:33)." These molecules work in conjunction with the receiver RNA (ribonucleic acid) molecules much like ordered information stored in a computer to form what a creature is, and also what it is not. Generally, this is why life has such variation, and really (identical twins notwithstanding) no two creatures are alike. Remember that until the advent of electron microscopy in 1953, the complexities and functions of DNA-RNA molecule combinations were unknown. Now scientists know that the interrelationships of these molecules are complex and interdependent, and that "life does not occur without the existence of interrelationships between these macromolecules, ruling out a

random gathering of proteins and polynucleotides over a long period of time (182:60)."

But what evolutionists are asking clear-thinking, honest, logical people to believe is that

> about 3 billion years ago somewhere in the sea (disregarding where the sea came from), some of the components of life (that is, carbon and hydrogen as methane, oxygen, and nitrogen) were subjected to some form of energy, possibly a bolt of lightning, and formed a living cell that could reproduce itself (89:39).

Simply stated, they maintain that life sprang from nonlife by chance.

The way evolutionists attempt to accommodate life by chance is by assuming extensive aeons of time. More specifically, given enough time, evolution seemingly hatches miracles. Gish (82:5) aptly illustrated the miraculous reasoning that evolution requires.

FROG ——time = instantaneous——→ PRINCE = NURSERY TALE

but

FROG ——time = 300 million years——→ PRINCE = SCIENCE

Figure 6

Miraculous Reasoning Postulated
by Evolution (82:5)

Obviously, neither of the above two processes can be said to be any more miraculous than the other!

Morris, et.al., have clearly demonstrated (89:42-43) (161:202) (182:154-161) (205:54, 60-62) and illustrated

(205:63) that the probability of chance origin of life for even a simple one-celled replicating creature is astronomically low; about 1 in 10^{280}. It is sometimes argued that one particle is just as likely of producing life as another (4:230-233). But this overlooks the meaningless combinations that exist in a true random system. In this example, only one combination for life works: 10^{280} do not work.

This chance is so small that it is beyond all imagination; i.e., for all practical purposes, impossible. It should be no surprise that biochemists cannot replicate life from nonliving chemicals (212), or that astronomers fail to locate extraterrestrial life (15:2-4). "A statistic of one cannot be extrapolated into millions and billions since the fact that the earth is inhabited proves nothing regarding possible inhabited worlds elsewhere (191:77)." Even in its simplest form, life is not accident, nor even something to be created by intelligent scientists. In fact, the most pure and simple living system imaginable is extraordinarily more intricate than the most sophisticated system ever designed by man (203:10). And when the DNA codes of the more complex forms of life (such as frogs, or even princes) are considered, it must be concluded that the more complex forms of life have an even less than 10^{-280} chance of being formed randomly! Chance origin of something as complex as man, or even his heart and circulatory system (211), must be considered to be (in a manner of speaking) much less than

impossible. Probability of life by chance points to the inevitable need of a purposeful creator, and not some meaningless accident.

Discussion of life's purpose (teleology) is normally thought to step outside the boundaries of science. But such consideration can never be totally ignored. There comes a point in nature where the universe cannot be completely and rationally explained, and the observer must consult pre-conceived beliefs for answers. Such theological overtones apply to questions of purpose as well as origins. Hence, those interested in teleological applications to the universe are recommended to the discussion in Appendix A.

Development, Not Recapitulation

Until the last quarter century, the hypothesis of evolution occurring through recapitulation (i.e., review or repetition) of a developing embryo was largely accepted. Many young people were taught to recite the phrase, "ontogeny recapitulates phylogeny." Reno explains:

> This means that as an individual embryo develops (ontogeny), it passes through the same stages as its remote ancestors did (phylogeny), or racial history. In other words, it claims the development of the individual parallels that of the race. In humans, the changes that take place during the nine months of gestation are thought to recapitulate (repeat) what took millions of years to accomplish by organic evolution, as single-celled animals became the complex ones of today (112:55-56).

Though generally misunderstood by most students, some older biology texts still teach this concept; even though this

principle is totally upheld by ignoring or fabricating the evidence to the contrary. But knowledgeable biologists soundly discredit the recapitulation hypothesis (190: 151-153). For example, says one biologist:

> In this form the theory runs into so many difficulties it clearly cannot be true. An immediate problem is presented by the fetal membranes, the umbilical cord, and other fetal structures that cannot represent adult structures of any period (40:201).

Many similar problems are confronted in the recapitulation hypothesis (112:56-62). Usually, texts will picture a series of sketches comparing embryological development with the supposed evolutionary development. But the enduring fact that all resemblances of embryos (e.g., human possession of "tails," "gill slits," and "profuse hair") remain superficial cannot be explained through any series of sketches or drawings. "In the 1800s a set of such drawings was made," writes Reno, "and even with their imperfections, they continue to be published in the texts of today (112:58)!" Quite simply, a human fetus is just as entirely human as a chicken egg is chicken. No ancestral morphologies are reviewed. Tinkle concludes:

> Careful studies have shown that the order of growth in an embryo is wrong for such a principle. Again, the alleged principle is not good science, because it rests on selected data, ignoring other data which are opposed to it. The growth of an embryo is directed by its genes (190:153).

Still, the principle that "ontogeny recapitulates phylogeny," sometimes appears in biology texts and other semi-popular writings aimed at readers who don't normally

consult the truth from different sources (49:142). But this Darwinian notion has now been exposed as completely false, and to this resolution most scholars agree.

Balance, Not Competition

Another Darwinian view that's had profound effects on nature and society is the concept of survival of the fittest. Marxism, Fascism, and Nazism are society's direct counterparts resulting from this cold and ruthless view of nature; a worldview based on dominance of the strong over the weak.

In the present media-oriented society, the survival of the fittest concept--depicting gruesome struggles within nature--presents itself dynamically in many films and television programs dealing with nature. And these types of shows, though likely well-intentioned and remarkably informative, do not seem to picture true animal relationships. For example, a ferocious tiger pouncing on a helpless goat may be shown. (This production slant sells shows.) But what is not shown is how the food from this kill lasts for days. Meanwhile, the tiger spends its time playing, sleeping, basking in the sun, caring after its young, and caring less where its next meal will come from. (Naturally, filming a tiger at peace with the immediate world does not sell shows.) It would generally seem that all predator-victim relationships in nature deserve a second look.

Another view of nature, that of symbiosis, is gaining momentum. According to Bergman:

> Looking at the natural world as a whole, cooperation and not competition may be the rule of the day--indeed, competition may be our misunderstanding of what is truly cooperation. The implications of this are clear. The entire Darwinian view of life may be an inaccurate and narrow distortion of reality. Indeed, the key to the whole science of ecology is balance, not competition where one animal increases its gene pool, or expands its population in direct proportion to its ability to "eat and avoid being eaten" or outdo its competitors.
>
> Nature enthusiasts, especially those who have traveled to parts of the world where there is a large number of wild animals, have noticed that the vast majority of time animals are at peace with one another and the world around them (142:175).

Animals don't store their kills in refrigerators or freezers. But without killing, the ecosystem would lose stability and animals would become rabid or starve anyway. "Most animals only kill what they need to live--and then the killing is quick and to a large degree painless (142:175)." Attaining a point of painlessness before death is a recurring testimonial theme from people revived after being pronounced clinically dead. Evidently, when the brain realizes that pain is useless in preventing death, pain is blocked and replaced by a feeling of euphoric surrender. In this way it seems, death would be peaceful, oblivious to the circumstances surrounding the experience.

Consider as an example what happens when a small bird (e.g., a turtledove with a broken wing) is captured and hand-held. It will struggle at first. But after a time, it will stop struggling, staring out of daydreamy glazed-over

eyes, and ultimately resigning itself to the worst fate for the moment. In the blink of its eye, the dove may resume struggling. Yet when the hands tighten their grip, the dove will again normally resign itself to peaceful complacency, seemingly oblivious to pain or surrounding circumstances.

In this case, setting the poor bird free may make it easy prey for the cat. Still this is not always certain, for as Bergman adds:

> It is not necessarily the animal that runs the slowest, or is somehow "least fit" that becomes prey to a predator. Typically, chance is the most important factor--the animal that happens to be in the wrong place at the wrong time (142:175).

Often, sick or injured animals die before they are overtaken by predators, and many animals will not prey on sick animals.

It would rather appear that life "is not a matter of to eat or be eaten--but being both eaten and eating (142:175)." Selection may ensure that species remain at a certain fitness level, but species advancement is never directly observed.

Evolution Not Repeatable or Testable

Suppose someone were to argue that observations could be made indirectly, and that specific kinds and mutations happen too gradually and slowly to demand any compliance to the probabilities of life happening by chance. Granted that these topics could be debatable. Does evolution become any more scientific?

"Evolution remains, at best, a model because events that are postulated to have occurred over millions or billions of years certainly cannot be repeated, nor can such a process be experimentally studied (197:85)." How could anyone possibly repeat events that are not even known? Dobzhansky acknowledged the fault of the evolution model to meet these important criteria:

> It is impossible to turn a land vertebrate into a fish as it is to effect the reverse transformation. The applicability of the experimental to the study of such unique historical processes is severely restricted before all else by the time intervals involved, which far exceed the lifetime of any human experimenter (20:388).

Because evolution is not repeatable and not testable through experimentation, it must again be doubly reaffirmed that evolution cannot be considered science. It also fails as a theory because it is nonfalsifiable.

It must be remembered that the creation model also fails to meet the requirements of scientific method. But creation is no less scientific than evolution.

Evolution as Religion

Evolution has a religious nature. "Characteristics of a religion which are evident from a study of evolution are dogmatism, faith, ardor or devotion to a set of attitudes and beliefs, and emotionalism (197:87)." More than solely a biological model, evolution is a philosophy, a religious system (humanism) counter to theism; a worldview

of life with a special system of ethics, including, "a program for social action, and a doctrine of future aims (203:11-13)."

Creation has a religious nature, too. But evolution and creation are equally religious; neither can be said to be any more or less religious than the other.

The Theistic Evolution Model of Origins

This paper approaches universal origins through two contrary and distinct models. A largely accepted alternative to the two-model approach to origins is collectively known as "theistic evolution." In this proposal, creation and evolution are combined. Evolutionary assumptions (e.g., the evolutionary progression, the geologic ages, expanses of time, natural selection, etc.) presumably happened under the guidance of a supernatural Creator. Theistic evolution attempts to adapt the creation model to the more popular evolution model, becoming in effect, "an evolution model with a Creator." Consequently, it is claimed that this combination saves argument between creationists and evolutionists. On the contrary, however, this view is not acceptable to either atheistic evolutionists or catastrophic creationists.

Any attempt to use an evolutionary format to establish teleology (purpose), catastrophism (worldwide flood, or

planetesimal encounter), or any supernatural influence in nature is met with the most damaging criticism from non-theistic evolutionists. Charles Darwin himself wrote: "I would give absolutely nothing for the theory of natural selection if it requires miraculous additions at any one stage of descent (70:86)." At the Darwin Centennial, Julian Huxley admitted in his keynote speech:

> Darwinism removed the whole idea of God as the creator of organisms from the sphere of rational discussion . . . I think we can dismiss entirely all idea of a supernatural overriding mind being responsible for the evolutionary process (203:12).

In addition, creationists (including Bible scholars) can't accept theistic evolution either.

In the final analysis, it seems that theistic evolution is just another form of the evolution model (though unacceptable to the atheistic evolutionist). It deals with the same evolutionary assumptions and conclusions. At best, theistic evolution walks an unsteady fence separating evolution and creation. Kofahl and Segraves suggest, for example:

> It appears that those who would embrace some scheme of theistic evolution must soon find themselves in an intellectual "no man's land," where they will be called upon to defend themselves against formidable logical arguments directed from both the creationist and evolutionist camps (202:236).

Atheistic evolutionists are too materialistic to allow supernatural agents and explanations to change their beliefs. Theologically minded creationists take literal interpretation of the Scriptures too seriously to make it

sound like "God spoke, and had to wait a few billion years until it was done."

Scientific objections to theistic evolution are apparent throughout this report. It is beyond the scope of this paper to enumerate Scriptural objections to theistic evolution. Many current publications (97:45) (136:110) (162:210) (202:231-236) (206:203-255) exhibit the traditional objections and literary drawbacks of theistic evolution; including the interpretation of Biblical chronologies (202:233) (206:247-250), the day-age hypothesis (89:22-23) (97:43-45) (99:116) (113:148-149) (114:27-29) (129:108-109) (132:24-33) (202:231-232) (206:221-230), and the gap hypothesis (113:142-144) (114:29-31) (202:232-233) (206:231-243). And Niessen specifically illustrates the significant discrepancies between theistic evolution and the Biblical tradition (175:203, 221). Therefore, the remainder of this report will discount all creation-evolution combination attempts, and only address the subject of origins strictly through two scientific models: creation and evolution.

The next section deals with the problems and advantages of adopting a two-model method to origins in the American public education system.

Implementing a Two-Model Approach to Origins in Public Schools

Academic Freedom and the Adoption of Nonreligious Education Programs

Certain laws guarantee the separation of church and state, and consequently, such religious practices as worship and indoctrination in sets of dogmatic beliefs are prohibited in American public schools. Though the doctrines of evolution or creation show no outward signs of worship, the exclusive teaching of either includes an indoctrination of beliefs and practices (69:257-266) (93:3-4). Thus, it is no more illegal to teach the creation model on an exclusive basis than it is to teach only the evolution model. The law is clear: the exclusive teaching of either model constitutes violation of the separation of church and state. On this basis, extreme rationalists even go so far as to argue that evolution, as well as creation, should be barred from public schools on the premise that both are too radically religious.

However, as Wolfrom maintains, "a comparative study of both the evolution and creation models does not involve an act of worship, nor does it involve indoctrination with a set of religious beliefs and practices (197:87)." A two-model approach to origins is not religion. Not only can creation and evolution be taught side-by-side in public schools, but democratic taxpaying parents should insist that public schools adopt programs and textbooks to help teachers

do so. The teaching of both creation and evolution is not religious, teacher retraining would be only minimal (203: 3-5), and materials such as textbooks containing evolutionary bias (42:38) (112:125-128), only slightly altered. Some materials are now available to teach a two-model approach to origins in history (200), biology (201:60-63) (207) and the other sciences (170:46-49) (199) (202) (204-206) (208) (209:8-10), and can be taught in as little as three weeks (or less) in a short unit (199) (201:60-63).

Unfortunately, criticism remains strong against teaching any form of creation with evolution in public schools (92:181-187). Fear of academic reprisals inhibits the academic freedom of those teachers who desire teaching the evolution-creation approach (41:6B). And not only do the critics believe implementation of this two-model approach to be a breach of the separation of church and state (42) (206:14), but also that entire curriculums will have to be revamped (63:16A). Of course, their fears are unfounded.

Not only has it been shown that teaching from a two-model approach to origins is not religious, but also that teachers and curriculum would not even drastically change. In most cases, evolution-based textbooks could remain as the main texts, supplemented by creation-based books. It appears that most of the unfortunate criticism, coming from both the theological and scientific perspectives, is simply due to evolutionary bias. Evolution-minded people

become so overwhelmed by their model, they refuse to see the logical alternative, i.e., fair consideration for the discussion of the creation model.

In the American educational field, the principle of "academic freedom" must be protected. Students have a right to know, just as teachers have a right to publish what they know. Indoctrination of any controversial viewpoint to the exclusion of another must be labeled unconstitutional, and especially unfair by American standards.

For whatever the critics say, it remains constitutionally illegal to teach one model of origins in public schools to the exclusion of at least a "reasonable opportunity" to teach the other. Before creation is entirely excluded as an alternative to origins, the critics may do well to consider the legal basis for teaching creation as a viable alternative to evolution.

Legal Foundations

Morris writes in short summary that:

> Since creationism can be discussed effectively as a scientific model, and since evolutionism is fundamentally a religious philosophy rather than a science, it is clearly unsound educational practice and even unconstitutional for evolution to be taught and promoted in the public schools to the exclusion or detriment of special creation. The widespread opinion that it is illegal to teach creationism in the public schools is due to ignorance or misunderstanding of these facts (203:14).

Recently, thorough research has been given as legal support for the teaching of creation as an alternative model of origins by Wendell Bird in the Yale Law Journal:

> Neutralization by means of instruction in scientific creationism also would not necessarily have a legislative purpose of furthering religious rather than secular concerns that would contravene the establishment clause. . . . Similarly, addition of scientific creationism to a biology course that exclusively teaches the general theory has the secular legislative purpose of presenting more than one nonreligious explanation of the origin of the world and life. Even Clarence Darrow of the Scopes Trial fame (74:103-118) remarked that it is "bigotry for public schools to teach only one theory of origins" (64:561).

Constitutional and other legal considerations must therefore be considered in view of the religious nature of teaching evolution as a one-model approach to origins. Some of these considerations will now be reviewed.

Constitutional Provisions

First Amendment, U.S. Constitution, Section 1 (restrictions on powers of Congress):

> Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

Fourteenth Amendment, U.S. Constitution, Section 1 (citizenship):

> No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or prosperity, without due process of law; nor deny to any person within its jurisdiction the equal protection of its laws.

The 1964 Civil Rights Act Provisions, Section 202

The 1964 Civil Rights Act Provisions, Section 202, affirms it illegal for,

> . . . discrimination or segregation of any kind on the ground of race, color, religion, or national origin at any establishment or place, if either purports to be required by any rule, order, etc., of any State or any agency or political subdivision thereof.

Comments of U.S. Supreme Court Justices

Some comments of U.S. Supreme Court Justices (203: 15) are:

> We agree, of course, that the State may not establish a "religion of secularism" in the sense of affirmatively opposing or showing hostility to religion, thus "preferring those who believe in no religion over those who do believe." (Justice Arthur Goldberg)

> Government in our democracy . . . state and federal, must be neutral in matters of religious theory . . . . It may not aid, foster or promote one religious theory as against another. (Justice Abe Fortas, comment in connection with ruling striking down Arkansas anti-evolution law)

> The fullest realization of true religious liberty requires that government neither engage in nor compel religious practices, that it effect no favoritism among sects or between religion and non-religion, and that it work deterrence of no religious belief. (Justice Harlan)

The law is clear. To exclusively (or even favorably) teach evolution in the schools is religious discrimination against Christian, Jewish, and Islamic children. This is not much different than racial or ethnic discrimination. "The only fair, legal, constitutional solution to this problem is to teach both evolution and creation, strictly as scientific models of origins, whenever and wherever the

subject of origins is under discussion (203:16)." Not only is this solution fair and legal, but public opinion polls reveal that most parents and citizens prefer it.

Survey Response

There are several advantages to teaching a two-model approach of creation and evolution as an explanation of origins in the public schools.

In the first place, many public opinion polls have shown that parents and citizens in general overwhelmingly desire both models to be taught in public schools, rather than the present practice of teaching only evolution (65: i-ii). This was also the opinion of college students considered separately, and teachers considered separately (178:183-184).

For instance, the Institute for Creation Research Midwest Center is presently conducting a continuing random telephone survey in many cities in fourteen states. The survey's central question is:

> Should evolution only, creation only, or both evolution and creation be taught in public schools?

Results are limited, but they do provide a good sampling of how adults, from different points of view, feel about what is fair and suitable for teaching the subject of origins in public schools.

Data so far compiled (65:ii) is illustrated in Table 1.

Table 1

Results of 14-State Regional
Random Telephone Survey

5.2%	teach evolution only
18.9%	teach creation only
64.0%	teach both creation and evolution
11.0%	teach neither

In the Mankato-North Mankato area of southern Minnesota, a similar random telephone survey was conducted by this writer. Results were sent to the Institute for Creation Research Midwest Center to be included in that regional survey. Of fifty adults responding, results proved comparable with the Midwest survey.

Table 2

Results of Local Random
Telephone Survey

16%	teach evolution only
24%	teach creation only
60%	teach both creation and evolution

Interestingly enough, of the respondents who wished public schools to teach evolution only, about half remarked that they felt the teaching of creation should be kept in the churches primarily because their churches or private schools were presently doing a better job teaching creation than would be possible in the public schools. This is certainly encouraging. But it must be remembered that many churches, including Christian churches, either teach very little of

creation, or split the difference by teaching some form of theistic evolution.

In particular, the commentary of Father Teilhard de Chardin (202:44, 128), plus the interpretation of the address of Pope Pius XII to the Papal Academy of Science at Rome a quarter century ago (85:458-462) have led many Roman Catholics to accept theistic evolution as a compromise. Teilhard de Chardin strongly professed evolution as God's method of creation (202:44, 128). Similarly, Pius credited modern science for affirming Aquinas' original proof of God's existence (i.e., the omnipresence of change in matter), contending that cosmic developments "pointed to their beginning in time some five billion years ago (28: 195)." The encyclical concluded:

> Creation in time! That presupposes a Creator, presupposes God! This declaration, even if it is no express and final declaration, is one which we demanded from science and which modern man expects from science. It is based on a mature and clear consideration of one single aspect of the universe--its mutability (85:461).

It must be understood that in the first half of this century, the Church was often under attack by those who said, "there is no God," "God is dead," etc. What science supplied to both these Catholic leaders (through the Laws of Thermodynamics) was proof of the universal creation, and of its upcoming inevitable end. This conclusion served to quiet the Church's opposition at that time. But it must not be forgotten: this conclusion was only accepted because

modern man "demanded" and "expected" it from science, and that it was based on only one aspect of observation--the Second Law of Thermodynamics. Certainly, it is unreasonable to believe that all truth can be based on but one law of science!

History must be understood in terms of the circumstances surrounding the events. The Pope, using the assumptions science provided, may have been correct though incomplete. The result is that Roman Catholics, for the most part, accept theistic evolution as a compromise to a literal interpretation of Scripture. Generally, this is why the burden of teaching both models of origins can no longer fall completely to the churches, and must also be given to the public schools, at least in terms of ability to correlate scientific data.

Nevertheless, the regional and local random telephone surveys indicated must be counted representative of what American adults feel is fair. These two polls show that about 84 percent of American adults want creation taught in some form to their children attending public schools. Such a majority must be considered very significant. It not only denotes the need for more information on models of origins, but it also implies that teaching evolution as the only model of origins fails to be open-minded (178:183-184) and it furthermore is not popular any longer.

Other studies, in addition, reveal that using a two-model approach to origins in an inquiry context will exhibit additional advantages. Bliss said, "students seem to be more highly motivated and to learn more effectively when studying science from a two-model approach (65:iv)." And in an unpublished abstract, Bliss maintains that, "students taught in a two-model fashion will be more critical and willing to change ideas as new data come onto the scene (66)."

Other Pedagogical Advantages

Morris lists (206:1-2, 14) several other benefits to be gained (by both students and teachers) from teaching a two-model approach to origins; whereby in summary, this approach (1) develops love and enthusiasm for scientific discovery, (2) confronts the question of first cause, (3) offers a foundation for real understanding to the origin of physical processes affecting the social sciences, including the origin of sociological entities (war, crime, etc.), (4) gives a sense of personal identity and purposeful goals, (5) promotes proper mental health, and (6) stimulates responsible behavior and earnest effort, as well as honesty and consideration for others. Certainly, such qualities are desired by teachers of their students. But teachers who teach classes influenced by the evolutionary persuasion ("life by accident," "survival of the fittest," etc.) cannot

teach these qualities, because these qualities are contrary to the intended resolution of the subject material. In effect, a one-model approach to origins (evolution) is taught in schools, regardless of the advantages to be gained by teaching a two-model approach. But the acceptance of evolution was not always the popular trend.

The Importance of Catastrophism and the Flood Geology Model

Until about 120 years ago, geologists and scientists (as well as church leaders and other scholars) accepted the concept that all sedimentary rock and fossils were rapidly formed in the recent past by a cataclysmic worldwide flood. (104:ix). This concept was "displaced, not by the discovery of facts which refuted it, but by the resurgence of the ancient pagan philosophies of innate evolutionary progress which simply denied it (95:viii)." Consequently, it can be shown how this essentially Epicurean philosophy has left its present impact on every facet of culture: including economics, politics, history, mathematics, science, music, and the other humanities (92A) (92B) (94:50-55) (181:73-74). The influence of evolutionary thought is felt virtually everywhere.

It seems that in the present culture, it becomes easy to believe that, "processes continue now as they have since the beginning." This can be a dangerous attitude,

because this belief carries with it a feeling of security that may not be ultimately justified. Of course, this essentially evolutionary attitude does not really fit the organic evolution construct.

Any attempt at reconciling the world through random chemical processes requires a primeval oxygen-free atmosphere. Since oxygen would ruin the alleged uniform processes, it is easier believed that the atmosphere "reduced" to its present condition. Thus accepted, this assumption seems conflicting to the uniformitarian point of view. Why is it accepted? Because the organic evolution model requires it! But there is a growing body of evidence to show that the atmosphere has always contained oxygen, evidently being about the same as it is now (18:1161-1185) (60:66-84) (165: 176). Such an atmosphere in no way contradicts the creation model, in fact, a near-normal atmosphere would be predicted by it. Therefore, the burden of proof--i.e., that the present atmosphere is merely a by-product from former oxygen-free concoctions--rests heavily on the evolutionists. Such drastic change is not easy to explain with the uniformitarian scheme required by the evolution model. It seems much easier to characterize evident major changes that have occurred in the world (and indeed, in the universe) in terms of the creation model.

The likely possibility that the earth once went through various catastrophic changes, probably due to a

worldwide flood, will now be set forth as a premise to be reviewed. The pre-Darwinian scholar based all knowledge on the concept of a created world destroyed by water--perhaps, he was right. If he was right, observations should be able to be made fitting all available subjective data into understandable models that support the universal flood concept. Amazingly, such observations are made, and interpreted in a context of flood catastrophism throughout the next section of this report. From this context of flood effects, speculation about the condition of the pre-flood world will be made leading finally, to the unhushed testimony of the flood traditions.

The Interpretation of Catastrophism
Effects of the Flood

Rapid Sedimentation

Assuming that a flood once covered the entire earth, it would cause earth-shaking hydrological consequences. Rivers rose and land gouged. Volcanoes exploded and oceans churned. Immense pressure from water and silt caused faulting and cracking in the earth's crust throughout its surface. It might be said, it was as if the whole world had been thrown into a mixing blender.

In the aftermath of the flood, there was a sedimentation process (99:123-124). Heavier sediments settled out first followed by progressively lighter sediments. Tremendous pressure, caused by water and sediment miles deep,

compacted all these sediments into what is now called sedimentary rock. Sedimentary rock is found in the ocean depths. And sedimentary rock tops high mountains, including the Himalayas (128:35). It is found everywhere.

The very nature of different rock formations unmistakably points to rapid sedimentation (206:101-111), but the clearest contentions in the argument for catastrophic formation of rocks exists in the fossil record.

Fossils

With little exception, almost all fossils are contained in sedimentary rock (82:36). Fossils represent the plants and animals trapped trying to escape during the sedimentation process of the flood (99:128-130). Naturally, the dense, less mobile plants and animals settled to the bottom before the varied, more agile animals. This formed a progression of fossilized life forms--first suggested by William Smith, and later refined by the catastrophist, Georges Cuvier--known as the geologic column (22:54-56).

Because of its usual progression of simpler fossils to more complex fossils, evolutionists assert that the geologic column gives the strongest evidence to the evolutionary process. Unfortunately, the evolutionists do not consider all observable evidence found in the fossils of the column (and emphasize only the observations that purport to selfishly advance their own uniformitarian ideas). Thus, an

evolutionary interpretation of the fossils runs into several serious difficulties:

1. Though abundant for plants and simple sea animals, fossil evidence is meager for higher forms of animals such as humans and birds (86:18).

2. Evolutionary geologists, Axelrod (5:7), Cloud (12:27), and Simpson (54:18) admit that one of the major problems of geology and evolution is the occurrence of diversified, multicellular marine invertebrates in Lower Cambrian rocks on all the continents, and their absence in Precambrian rocks. Except for a few disputed one-celled bacteria (37:51) or algae fossils found, it seems that there are no fossils to be discovered in Precambrian rock.

3. "Gaps unfilled by plants or animals are one of the chief weaknesses of the theory of organic evolution (112:32)." In the amoeba-to-man progression, there is not one transitional form (97:59) (169:111) (199:32). The Euglena (114:36), Eohippus (97:60), Archeopteryx (9:198), and Australopithecus (82:85-88) are not missing links, but represent separate and unique species. Harvard University's Alfred S. Romer noted that, "'links' are missing just where we most fervently desire them and it is all too probable that many links will continue to be missing (47:114)."

4. At no place in the world is the stratigraphic column complete (97:75) (112:23).

5. At no place in the world is fossilization taking place today (97:59).

6. In every part of the world (e.g., the Heart Mountain Thrust of Wyoming (130:88), the Lewis Overthrust of both Alberta and Glacier National Park, Montana (99: 185-194), and the Glarus Overthrust of the Alpine Region (53:93)), older sedimentary rock with its older fossils is sometimes superimposed directly on top of fossils in newer sedimentary rock (97:77). It has been demonstrated on the basis of known friction coefficients for sliding blocks that these imposing rocks are too massive to be explained merely with the concept of overthrust faulting (99:91) (130:88). Neither does overthrust faulting explain how an "older" fossil can get directly on top of a "newer" fossil (97:76) (99:206-207) (132:35).

7. Richard Leakey, son of Louis Leakey of Zinjanthropus fame, discovered a human skull with various tools imbedded in strata dating a million years earlier than the Zinjanthropus skull. If this archeological find is, indeed, a human artifact (151:173-176), this could be the most important find of the century from the creationist viewpoint. Of this skull (later named "Homo habilis"), Leakey condoled that "it simply fits no previous models of human beginnings . . . leaves in ruins the notion that all early fossils can be arranged in an orderly sequence of evolutionary change (36:819-828)."

8. At Agate Springs, Nebraska (99:159-160), twisted fossilized animal skeletons extend for miles in a horizontal layer of limestone. These fossils were not formed slowly because animals stumbled into a sinkhole over the ages, but the contortions and flatness of these animal bones indicate that they were formed rapidly due to catastrophe and rapid burial (103:77) (104:94-99).

9. Ephemeral markings, such as bird and reptile tracks, worm trails, rain prints, and ripple marks (including rippled drumlins) point to rapid deposition (96:129) (118:157-164) (149:154-162).

10. Polystrate fossils, especially upside-down tree trunks (that curiously look just like trees that float downstream during a flood), are found extending through several sedimentary rock strata (118:157-164). Coal seams (from carbonized plants) occasionally have polystrate trees running through them indicating rapid deposition in opposition to the peat-bog hypothesis (206:107). Likewise, oil (formed from carbonized marine animals) can be reproduced in the laboratory using ordinary garbage, which could also indicate rapid formation (2:77).

11. Alluvial valleys and the characteristic meandering of rivers show that rivers of the world, in very recent times, carried tremendous volumes of water and sediment (96:130-131).

12. Trilobites, what are considered to have been extinct millions of years before "Homo sapiens" appeared on the scene, were discovered imbedded in modern (sandal-shod) human footprints (71:185, 188-189).

13. Darwin himself did not believe fossils gave much sustenance to evolution by natural selection (113:114), and he demonstrated his uncertainty by writing an entire chapter in The Origin of Species titled, "On the Imperfection of the Geological Record" (14:48-88).

In short, the testimony of the fossils points to: (1) establishment of horizontal variation within unique "kinds" (183:96), instead of amoeba-to-man vertical evolution, (2) rapid deposition instead of slow formation of sediments, and (3) the credible likelihood that fossil organisms from both old and new "ages" may have coexisted as contemporaries. All of the above predictions are unambiguously substantiated in the geologic column.

> The general order from simple to complex in the fossil record of the geologic column, considered by evolutionists to be the main proof of evolution, is thus likewise predicted by the rival model, only with more precision and detail; but it is the exceptions that are inimical to the evolution model (206:120).

Immediately evident should be the circular reasoning involved with evolutionary proofs.

According to the Encyclopaedia Britannica:

> It cannot be denied that from a strictly philosophical standpoint geologists are here arguing in a circle. The succession of organisms has been determined by a study

> of their remains buried in the rocks and the relative ages of the rocks are determined by the remains that they contain (24:168).

Consider the following way to illustrate this reasoning.

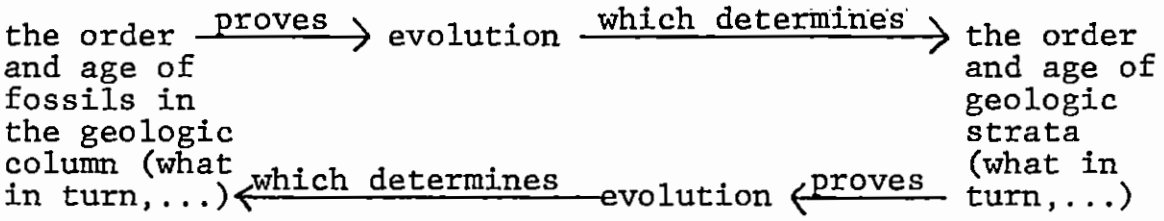


Figure 7

Circular Reasoning Behind
Evolutionary Proofs
In Geology

Simplified, fossils are used to date strata, and strata are used to date fossils. Somewhere in the middle of this reasoning, the assumptions of evolution are supposedly proven.

It would seem that a reinterpretation of geologic data corresponding to flood geology is needed.

Questionable Dating Methods

A reinterpretation of geologic data corresponding to flood geology must include an examination of all dating methods, especially radiometric dating methods. Many current publications (13:45-46) (28:251-255) (99) (144:137-141) (152:14-16) (153:38-41) (193:16-23) (198:102-129) (202:194, 204-211) (213-214) exhibit the weaknesses and misconceptions

in radiometric dating assumptions; including the more popular methods (uranium-lead, potassium-argon, rubidium-strontium, and carbon-14). This becomes especially evident in the existence of anomalous (pleochroic) radiohalos (77: 106-113) (78-80) (146:101-103) (188:103-107) (213:18-19), and variable decay constants (23) (28:253-255) (154:142) (213:23-29) (214:44-45). To clarify, Gentry notes from his observations of radiohalos:

> It thus appears that short half-life nuclides of either polonium, bismuth, or lead were incorporated into halo nuclei at the time of mica crystalization and significantly enough existed without the parent nuclides of the uranium series. For the Po-218 halo only a matter of minutes could elapse between the formation of the Po-218 and subsequent crystalization of the mica; otherwise the Po-218 would have decayed, and no ring would be visible. . .
>
> It is difficult to reconcile these results with current cosmological theories which envision long time-periods between nucleosynthesis and crustal formation. It is suggested that these halos are more nearly in accord with a cosmological model which would envision an instantaneous fiat creation of the earth (77:110-111).

For radioactivity to constitute a "clock," it must run without variation. Obviously, a clock that doesn't keep correct time is worthless as a measure of that time. The variations of radii in pleochroic halos is often ignored as evidence for variable decay rates in radioactive elements. But can variation in decay constants also be ignored? No, since radioactive decay constants form the foundations to any approach of nuclear geochronology. Slusher cites Emery in this regard:

> Emery (23) in a very important paper has shown that there is excellent laboratory evidence that external influences can change the decay rates. He reported that fourteen different radionuclides have had their decay properties changed by effects such as pressure, temperature, electric and magnetic fields, stress in monomolecular layers, etc. (214:45).

Other publications diagram seventy or more dependable earth chronometers that contain conservative uniformitarian estimates indicative of a young earth (99) (172:21) (205: 55-59). But do these chronometers apply to extraterrestrial matter?

It is often held by most geochronologists that when these calculations are applied to meteors and meteorites; that their age also approaches five billion years seems to show that the earth (coming from the same primordial matter) is also five billion years old (37:218). But do these scientists consider the young as well as the old meteoritic ages? It seems not. Absence of meteoritic dust, absence of meteorites in "old" rock strata, and radiometric dating of material from meteorite craters testify to a young earth (186:24). Likewise, it has been pointed out by Slusher that

> the existence of dust in interplanetary space (that causes "zodiacal light") is good evidence for a young universe, for by the Poynting-Robertson effect (i.e., the fall of interplanetary dust into the sun as a result of solar radiation pressures), and for other reasons too, the dust is removed from the solar system (75) (184:55-57) (216).

Similar arguments can be built around the moon (131), comets (59:538) (184:70-71), asteroids (189:82-86), "red shifts" (202:152-155) (214:10, 13-16), and other astronomical models

(148:201-211) (202:140-157) (214) to support the young universe opinion as well.

It must be remembered that rocks do not celebrate birthdays. Nobody really knows how old a rock is, because there is no direct method for determining the age of any rock (82:42). Assuming uniformitarian estimates, dating methods (including nonradiometric dating methods--e.g., dendrochronology) only treat the world as a closed system. But all scientists know that the concept of a closed system remains a scientific ideal; an impossibility, because all scientific systems are really open systems. In the earth system, there are many suggestions that there have been changes; especially in the ocean, e.g., through volcanism (213:31), and in the atmosphere, e.g., through atomic testing. But the biggest change of all may have been in the decay of the magnetic field shield.

Declining Global Magnetism

The earth is a massive dipole magnet. Its magnetism is caused by circulating currents in its liquid core. Consequently, it has a magnetic field any Boy Scout can easily detect with a compass. It has been reported:

> The magnetic field of the earth provides a shield against very high velocity particles that could cause great damage to living organisms. Should this magnetic field go down essentially to zero, there would be no protection against these high velocity particles for organisms here on earth, regardless of the state of the atmosphere (213:37).

But again, if the strength of this magnetic field were large, fewer high velocity particles (cosmic rays) would reach the atmosphere. In the upper atmosphere, carbon-14 is produced in proportion to the cosmic ray influence, so a stronger magnetic field would result in less carbon-14 for the atmosphere. Kofahl and Segraves conclude: "Consequently, living things which died under such conditions would now yield apparent carbon-14 ages greater than their true ages (202:194)." This is a major flaw against radiocarbon calibration though there are other objections listed (213:34-40). But this objection only holds true if Earth's magnetism is decreasing at a predictable rate. In truth, this magnetic field is dramatically decreasing at a very predictable exponential rate.

Gauss, Adams, Lamb, and other scientists have been estimating the power of Earth's magnetic field (i.e., its "magnetic moment") for almost a century and a half, and have measured its half-life to be approximately 1,400 years (89: 47) (202:194) (210:33-38) (213:36). This means that at the time when Beowulf slayed the dragon, the earth's magnetic strength was twice as strong; when Solomon constructed the temple, the earth's magnet was four times as strong; when the pyramid at Giza was built, eight times as strong; 9,800 years ago, 128 times as strong. That is, less than 10,000 years ago, the earth had a magnetic field field comparable to that of a magnetic star, and all metal as such would be

almost immovably stuck to the earth (89:48). This, of course, is presuming that metallic substances had an earth in which to stick; since beyond 20,000 B.C., Joule heating of earth's inner currents would result in separation of the core and mantle (210) (213:37). It shouldn't take long to see how impossible it would be to imagine the heat and strength of this magnetic field if it is extrapolated back even a million years! Obviously, either there have been some drastic changes in the world as we know it, or else we have not existed as life on this planet as many years as most of us would like to think. More than likely, both of these conclusions are true. Barnes' calculations show that the maximum outside limit for the earth's age to be no more than 20,000 years with a plausible limit of 10,000 years more reasonably suggested (141:13) (210) (213:37).

Distribution and Degeneration of Civilization

Distribution and the Ancient Tower in the Ruins of Babylon

Is it possible the world's population dissipated from one source? It would appear so. Nelson reports that:

> Such anthropologists as Andrews, Hrdlicka, and Osborn are outspoken in their contentions that Africa, North and South America, and the Islands of the Pacific have been peopled by men whose ancestors dwelt originally some place in central Asia (104:165).

The oldest known Tigris-Euphrates Valley cultures date from about 3100 B.C. (89:93). Biblically speaking, this land of

Sumer (or Shinar) is quite significant, because this land contains the rivers of Babylon (the Hebrews called it "Babel"), and tall towers called ziggurats (cf., Gen. 11--"the tower of Babel"). Dillow (155:145) quotes Cassuto in this respect:

> There seems to be general agreement that the actual remains of the biblical Tower of Babel have been uncovered. The Tower was located in a temple complex known as E-sag-ila, "The house whose head is raised up." Alongside of many shrines of the gods, the ancient Tower of Babel pointed toward the heavens. It was called E-temen-an-ki, or "The house of the foundation of heaven and earth" (68:227).

This particular ziggurat was seven stories (90 feet) tall, became a center for astrological worship, and the most highly-regarded Sumero-Babylonian god (Marduk) supposedly took residence in the top story (155:145). Cassuto concluded: "There can be no doubt that the Biblical story refers specifically to the city of Babylon and the ziggurat Etemenanki therein (68:229)." The building of this tower is descriptively told in the Sumero-Babylonian creation story, the Enuma Elish (VI:112, 672). Not only do the ruins of this tower coincide with the legends of rebellion that reportedly took place there (187:97-101), but they also suggest (in the manner of Mount Ararat) a specific starting point for the distribution of civilization.

Nonetheless after Sumer, civilizations migrated south to Egypt and Africa, northwest to Phoenicia, Greece, and Europe, and east to India, China, and the Americas;

certainly analogous to the migrations of the Hamitic, Japhetic, and Semitic tribes. This conclusion is supported by the tracing of language etymologies (45:27-29, 32-37).

Language Development

Nineteenth century evolutionists taught that language evolved in a positive direction from the animalistic grunts of ape-men to the sophisticated language of a James Joyce novel. But this could only be true if evolution were a valid universal principle. According to Bruce, "the observable data does not demonstrate that such a period of prehistoric development existed (67:iv)." One need only talk to any "primitive" man in his own language for a few minutes to see the fallacy in the grunts-to-words hypothesis. The so-called "primitive" languages are actually more complex than those of the "modern" society (45:133). Bruce continues:

> Language is in a state of consistent change which at best seems to maintain a state of equilibrium, because of regardless of how we might attempt to fit language into the broader picture, looking at language by itself there is no evidence that language is the product of any positive developmental process (67:iv).

Most linguists would agree that the process of streamlining is overtaking the process of restructuring, so that our language is in a state of degeneration from its ancient pure form. Perhaps, the concrete language of the ancient civilizations matched their sophisticated intelligence.

It cannot be overemphasized how advanced and intelligent these ancient civilizations were! All that remains to see of their mighty guilded cities are the stripped weathered ruins. But their temples, tombs, and stelae show great imagination. Their citadels, observatories, and pyramids show immense precision, forethought, and architecture. Nobody really knows how the pyramids in the Middle East and Latin Americas were built; or how to mummify a body as completely as the Egyptians did; or why the Zapotecs built a city on a mountain top with no plumbing (7:12-13); or in general, why all these ancient cultures were preoccupied with death, and power gained through observing the sun and the stars. What is known is that there were great civilizations that fell into states of decline and degeneration.

Anthropology and the Great Caveman Presumption

Cultural anthropologists normally picture man as having evolved through transitions from apelike creatures, to stone-age hunting and gathering beings, to farming and village dwellers, to advanced city-state civilizations (35: 188-191, 206-207). "But factual evidence for these evolutionary transitions has not been discovered, so that it took place is, therefore, a matter of faith and not historical evidence (202:117)." One example in recent times would be the Tasaday tribe of Mindanao, the Philippines, who were isolated from the other Filipino tribes 500-1,000 years ago.

Surely in centuries past they practiced agriculture and metal tool manufacture, but now they have degenerated into the most primitive culture imaginable (82:109).

Nobody denies that cavemen existed. Neanderthal Man and Cro-Magnon Man lived in caves, used stone and metal tools, and wrote on cave walls. But it becomes a matter of faith and not historical evidence to assume that one caveman actually predates another caveman (82:72, 111) (145:119-120).

Neanderthal Man and Cro-Magnon Man could have both lived contemporaneously with modern man, and there are several reasons for this.

First, remember that "many American, Mexican, and South American Indians have been cliff dwellers, and could, thus, be literally referred to as cavemen (89:97)." They live in caves either as part of their culture, or until something of a permanent nature can be built (129:28-29).

Secondly, because of a complex original gene pool, there is much variation within the human race (199:33) resulting in skulls of various sizes and shapes remarkably similar to those of "cavemen." For instance, it can be shown that Marquis de Lafayette (the American Revolutionary War hero) had a head shaped like the Neanderthal Skull of Spy No. 1; that Marquis de Pinedo (a famous Italian aviator) had a jaw at least as large and rounded as the jaw of Heidelberg Man; and even, Charles Darwin (the father of modern evolutionism) had a head similar in size to the skull of Cro-Magnon Man

(103:135-140). Computer-generated human head profiles conducted at the University of Connecticut serve to illustrate that the known growth of the human head and the supposed evolution of the human head are actually diametrically opposed processes (56:133). Human beings are different in appearance because of customs (e.g., the Chinook Indians (104:141) practiced the custom of flattening the forehead in infancy), racial peculiarities (e.g., the small skull cases of modern pygmies average only 900 c.c. (103:139), diseases (e.g., imbecility (103:139), vitamin deficiencies, etc.), environmental stress (56:140), sex (103:139) and age (103:139). With so many roads open to human variability, is it no surprise that human skulls are also found in different shapes and sizes?

Thirdly, all "missing link" conclusions are drawn from reconstructions based on merely the very smallest of evidence. For example, Leakey reconstructed "East-Africa Man" from 450 skull fragments and a shinbone (28:250). Similarly, Black based "Peking Man" only on a single tooth (82: 88-91). And Dubois rebuilt "Java Man" from a skull cap, three teeth, and a thigh bone; each piece scattered in a 25-foot radius of the other pieces in a jungle (82:85-88).

Last of all, the evolutionary view of man's development cannot be considered trustworthy when weighing the number of outright frauds exposed. Woodward's and Dawson's reconstruction called "Piltdown Man," the most monumental

of the hoaxes, fooled the world's greatest experts for thirty-eight years until it was exposed as a forgery by Oakley, Weiner, and Le Gros Clark (113:129). There were two "Colorado Men"; one was found to be based on a horse's tooth, and the other was displayed in a museum until it was disclosed to be the skull of a buried pet monkey (97:64-65). The Hesperopithecus tooth found in 1922 in Nebraska, "Nebraska Man," proved to have belonged to an extinct pig (82:91). "Then there was the Pithecanthropus skull, found in Java in 1926, that turned out to be part of a bear's hind leg (97:64-65)." Generally speaking, it can be shown that all important "ape-to-man missing link" discoveries are guilty of the lack of objectivity (82:73-107).

Therefore, it must be concluded that most cultural and physical anthropology is unfortunately based on evolutionary assumptions, and that there is every reason to believe that sophisticated civilizations originally dissipated from one source. In going one step further, Riegle equates the acceptance of evolutionary assumptions with the denial of a special Creator, and comments: "It is tragic that stories of 'cavemen' have been read by thousands of young boys and girls without any idea that they were in fact a denial of God and a promotion of evolutionary concepts (114:63)." Certainly, caveman stories would do much to preconceive most notions of the past. But that modern man lived contemporaneously with so-called "cavemen" is certainly

indicated. And if it is true that modern man and cavemen lived together in the same recent era, would it be impossible for modern man and dinosaurs to also live contemporaneously?

Dinosaurs and the Legends They Caused

Almost every ancient culture believed that there were dragons living on the earth. Where did they ever get such an idea? Rouster suggests: "Many creationists have expressed the viewpoint that the almost universal tales of dragons in early literature represent remembrances of traditions of actual encounters of humans with dinosaurs (179:221)." Dragons are found on early art relics (32:235) (49:140-141), and in the early literature of the Babylonians, Egyptians, Greeks, Romans, Germans, Danish, Norse, Scandinavians, Irish, English, and among the traditions of the American Indians, and Eskimos (117:24). For instance, in the old English epic Beowulf, there is a dragon tradition (cf., Beowulf:2200-3182) in that it was a flying reptile who vomited flames (179:221-222). It was measured to be fifty feet long after it was killed (Beowulf:3042) (11:83).

The Old Testament recalls Job's encounters with two gigantic creatures: leviathan and behemoth (Job 40:15ff.). To Job, the description of behemoth (who lies in coverts of the reedy swamp, feeds on grass like an ox, and carries his tail like a cedar) seems to portray some sort of dinosaur; possibly a diplodocus, brontosaurus, or even a brachiosaurus

(130:28). And though the description to Job of leviathan sounds somewhat like a whale (who churns the sea), further description of leviathan (who also has impenetrable armor for skin, eyes like the dawn, and flames pour from his mouth) unfolds to graphically characterize a dragon. Isaiah for one, specifically sustained that leviathan was a coiled sea dragon (Isaiah 27:1).

It has been suggested that dragons actually existed in the form of trachodons (81:28-30, 55) designed with fire-emitting mechanisms similar to that of the bombardier beetle (81:50-55) (202:2-3). One must ask: if it is possible for a modern-day beetle to have such a fire-emitting mechanism designed into its body to protect itself, would it be impossible for a dinosaur to also have such a device?

"Many Bible scholars feel that some dinosaurs may have survived the Flood, but that due to severe climatic changes, they died out within a few generations after the Flood (117:27)." If the lush vegetation of the antediluvian world suddenly became decreased by arctic and desert regions, this extinction seems possible with these small-brained creatures. But this could not have taken ages of time.

In the Paluxy River Basin near Glen Rose, Texas, human footprints have been found fossilized with the tracks of dinosaurs (99:172-176) (130:28). This proves to be a very significant find. Similar to living contemporaneously with extinct trilobites at some time in the recent past, it

seems that man also walked with dinosaurs in the same river mud. Segraves reports that:

> Dinosaur eggs, or large reptile eggs, were found off the coast of Madagascar up to one thousand years ago. Cave paintings in Rhodesia show a brontosaurus painted by bushmen who are known to have left the caves about 1500 B.C. The interesting factor here is that the bushmen only painted things they could actually see (122:137).

Such cave paintings cannot be accounted for unless these dinosaurs were actually observed living at that time. There is, in fact, every reason to believe that man probably lived and walked with other forms of "extinct" animals as well.

An ancient Mayan relief of the Quetzal bird--a bird with reptilian characteristics--was found by Jose Diaz Bolio in the ruins of Tajin at Totonacapan in northeastern Veracruz, Mexico (206:121). Experts think this is "a realistic representation of an animal that lived during the time of the ancient Mayan (52:1)." By the post-classic period of the Toltecs, the animal was adopted and deifyed into almost all Mesoamerican culture and art, pictured as a green plumed serpent. The legend of a man named Quetzalcoatl grew from this motif paving the way for the Spanish conquest that shaped Mesoamerica's destiny. Even in modern times, the Guatamalan "quetzal," named after the Guatamalan national bird, is the monetary unit of exchange in that country to this day.

Closer examination of some of the carved reliefs reveal that these ancient artisans were not in the business

of reproducing a "winged serpent" so much as they were reproducing a long-bodied "winged bird with teeth." For example, the citadel of Quetzalcoatl, part of the ruins of Teotihuacan northeast of Mexico City, sports a whole staircase lined with feathered serpent heads (8:15). Besides having many feathers, these carved reliefs also hold a full set of teeth in their mouths.

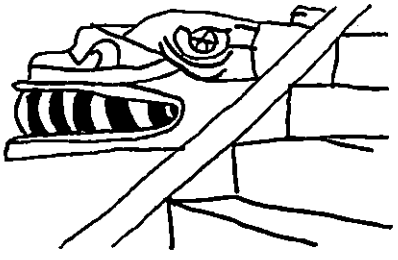


Figure 8

Serpent-Bird Relief From Staircase.
The Temple of Quetzalcoatl
Near Mexico City, Mexico

Just as Archeopteryx and Archeornis fossils denote birds with teeth, so the serpent-bird motif is a familiar theme decorating pre-columbian art in Mesoamerica. Is it possible that some of these birds were still flying around in the Americas until only recently? As with the dinosaurs, "the evidence seems clear that Archeopteryx, or some equivalent ancient bird, was contemporaneous with man and only became extinct a few thousand years ago (206:122)."

Dinosaur fossils, dragon legends, and Quetzal bird motifs remain testimonies to a comparatively recent creation, and a severe worldwide climatic change, most likely due to a universally inundating flood. It is in viewing the effects of this flood that we can guess what the world was like before the water wiped everything out.

Speculations Concerning the Antediluvian World

A Change in the Weather

What was the world like in the ancient past? Why did the dinosaurs become extinct? All sorts of ideas have been suggested. Some say that supernovas, disease, spacemen, cosmic rays, or interloping celestial bodies changed the world. Others blamed dinosaurs because of their small brain capacity. But none of these ideas come close to fitting all the facts. Nobody really knows what the prehistoric world was like. We don't know either, but we may get a pretty good idea.

According to Gish,

> The idea suggested most often by scientists to explain the extinction of the dinosaurs in the ancient world is the suggestion that the weather all over the earth changed so drastically that the dinosaurs simply could no longer survive in this "new" world (81:56).

Above the Arctic Circle and in Antarctica, fossil finds of plants and animals normally found in tropical climates suggest that these frozen lands were once comfortably warm and humid (89:35). The discoveries of coal in Antarctica (55:32)

and oil on the north slope of Alaska (90:56) indicate that vegetation was unbelievably lush, and the numbers of grazing animals were almost countless.

What caused the drastic change in the weather? To understand any theory that attempts to answer such a question of former conditions, an atmospheric model must be defined.

The Atmosphere

The earth's atmosphere consists of three distinct layers--the troposphere, the stratosphere, and the ionosphere--and extends out to approximately 300 miles from its surface before it reaches the vacuum of space.

The troposphere is the layer most people are familiar with, because it is the layer in the immediate proximity to the earth's surface. It contains weather; air to breathe, dust, clouds, and moisture. Ranging from five to ten miles high, its temperatures range from normal at the surface to sub-zero (-100°F) at a height of ten miles. This decline in temperature continues into the stratosphere.

The stratosphere extends out to 50 miles and contains as a distinctive feature, the ozone layer. Ozone molecules (O_3) form the fresh scent smelled in the air shortly after a thunderstorm. McGowen believes that

> At the 30-mile level this ozone forms a definite layer, and although the stratosphere above and below this layer is attended by sub-zero temperatures, the ozone layer creates a temperature of plus 30 degrees Fahrenheit (89:32).

McGowen, for one, maintains that this could be an important feature.

The ionosphere completes earth's atmosphere, extending out in excess of 300 miles. This layer contains a large amount of electrically charged ions giving this layer its name. Ionospheric temperatures are hot, approaching 2800 degrees Fahrenheit in the upper reaches.

With this atmospheric model in mind, the question of where the water was produced will now be approached.

The Problem of the Water

Apelles, an heretical teacher, raised this question as early as the second century of our era: "Is there enough water on our planet to cover the entire earth?"

Some people believe there isn't sufficient water in the whole biosphere to submerge the entire earth (90:54). Bosche quickly points out that:

> The most torrential rainfall ever recorded in modern times--twenty-four inches at New Smyrna Beach, Florida--would cover the world with only eighty feet of water in forty days, and certainly not submerge the highest mountains (10:162).

Creationists agree that:

> If all the water vapor now in the atmosphere of the earth condensed and fell in the form of rain over the entire surface of the earth, only about one or two inches of rain would fall and then there would be no water vapor left (81:57-59) (89:34).

The possibility of a worldwide flood in forty days and nights becomes an impossibility if the water comes only

from the sky. On this basis, these people contend that a universal flood would be impossible, and that tradition and sedimentary rock were probably formed by series of local floods. Any person with a habitat near the ocean will say, of course, that floods do not necessarily only come from the sky. But for now, the evidence dealing primarily with the water that caused the flood by raining from the sky will be examined.

Observable evidence suggests that at one time in the past fish swam over the Himalaya Mountains (128:35). This could be said for all mountain ranges. In fact, rock salt (90:16) and pillow lava (87:9, 11) were recently found on a mountain in northeastern Turkey called Ararat. Though most geologists confess ignorance, some say that these mountains were lifted from the bottom of the sea at a time in the distant past due to fantastic forces of stress, possibly even continental drift (33:12). But the concepts of over-under thrusting and continental drift run into severe tectonic difficulties that these same geophysicists do the least to explain (99:180-211) (206:119). There is every indication that all mountains were once covered with water.

Others agree that there was some flooding of a sort, but that it was caused by the melting of the polar icecaps (61:78). Soviet scientists contradict this hypothesis. In Antarctica, Soviet scientists have determined that one time "the level of the Southern Ocean was at least 1,200 feet

higher than today (55:33)." Perhaps an ice age would account for this added level of ice. But in view of drumlins and driftless areas, a single ice age is better used to explain as part of the aftermath of a worldwide flood, than as part of some uniformitarian concept (143:222-224) (149: 54-62) (150:25-33). It would appear that great amounts of water once covered the South Pole much the same way it once covered the Himalayas. Indeed, the world at some point in the past was quite different from the world of the present. It was completely under water!

Presently, the world consists mostly of water. Not only is there twice as much water surface area as land surface area, but the ocean averages twelve times deeper than land is high. Scientists predict that the major part of the earth's molten iron core is water (166:141-146). "Steam equivalent to 4,600,000 gallons of water a day, has been observed to issue from one of the subsidiary cones of Mount Etna (114:30)." Obviously, there is more water contained in this planet than one will first imagine by looking at a globe or map.

Therefore, in answer to Apelles' question of whether or not there is enough water, the answer must be a qualified yes! It appears that water before the Flood wasn't in the ocean depths so much as it was some place else.

A number of models have been suggested as to what the world was like before the Flood. The most reasonable view of all is presented in the canopy model.

The Canopy Model

Canopy Mechanics and the Ideal Greenhouse

Thought to be first suggested by Kellog (40:55), the canopy model proposes that the antediluvian earth was originally enclosed within a canopy of water vapor intercepting the immediate rays of the sun.

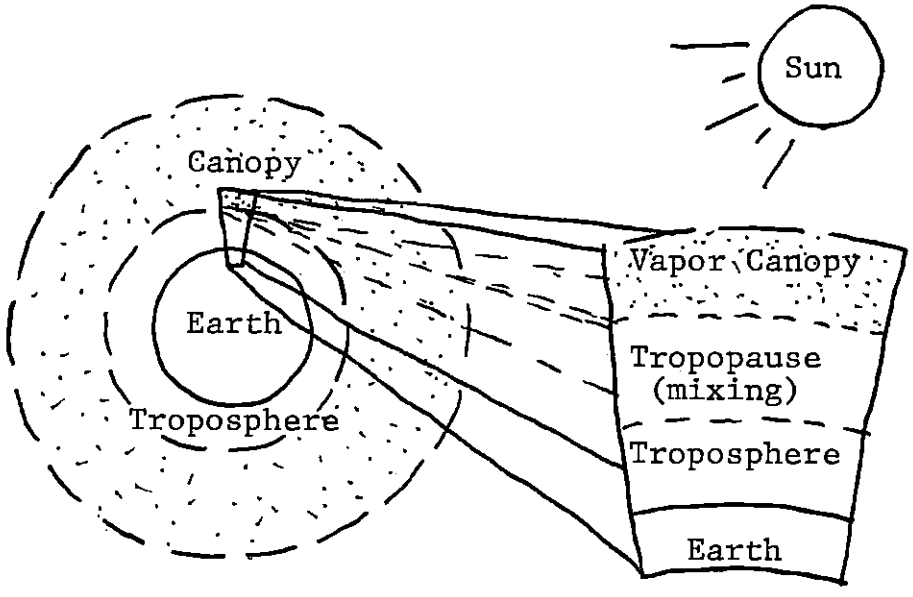


Figure 9

The Canopy Model
(drawing not
to scale)

Heat penetrating the canopy diffused equally to each latitude. This made possible a worldwide subtropical climate, even in the extreme latitudes. Barometric pressure, humidity, and temperatures were unbelievably stable. Rehwinkel comments that "storms and rain were unknown in this world, and hence the rainbow was first seen on the day that Noah left the ark (110:9)."

The water canopy formed the earth into an ideal greenhouse (90:55-56) (99:253-255) (107:201-204) (108: 131-135) (109:24). Advantages included: (1) shortwave rays from the sun, especially those most active in the aging of living things and those that bring about sunburns, decay, and fermentation, were intercepted by the canopy (110:9), and (2) the ozone gas, proven deadly by experiment, remained in the water vapor layer unmixed (by storms and prevailing winds) with the air we breathe (90:50). Within the last century, there have been differing ideas as to how the antediluvian canopy may have existed. There have really been only three suggestions as to the composition of this ancient canopy: solid ice (or ice crystals), simple water vapor, or superheated steam. Each suggestion will now be dealt with in turn.

Some Suggestions for Canopy Composition

Ice. It has been suggested that the canopy was originally an ice canopy (90:56) (107:196) (108:135)

(195:182-184). The ice crystals supposedly came from deep space, were disturbed by an astral visitor, and were deposited at the poles in the manner of magnetic-gravitation catastrophe (i.e., radiation belts and Roche's limit). Due to this canopy's opacity, kinetic energy (168:204), and mass (pressure) of the ice (158:153-155), this "ice dump" construct has many difficulties. That radiation reached earth through elongated ice crystals according to the principles of fiber optics is another suggestion (195:182-184). But in particular, it has been demonstrated how the delivery of ice crystals from orbit would produce "a scalding hot, superheated steam bath, not a flood or freezing (168:204)." A canopy with more of a liquid nature must be more reasonable (124:147).

Fog. McGowen asserts that "it is quite reasonable to assume that the water canopy existed in the stratosphere at the 30-mile mark, since 30-degree temperatures would be quite compatible with the maintenance of water vapor (89: 32)." In view of the present atmosphere, this form of water vapor canopy indeed seems reasonable. And an exegetical basis for accepting this canopy concept has been demonstrated (194:90-93). But this construct also has difficulties that may not be evident during initial examination.

Some of these problems include the weight (pressure) of the water vapor, convective turbulence, and temperature changes within the canopy due to the presence or absence of

solar (day/night) radiation. But the most devastating evidence against this model is, as with the ice canopy suggestion, its opacity (168:202). Water vapor, at least as it is known in the freezing temperature range, normally condenses and precipitates. If it does not precipitate, it stays aloft in the form of fog. For example, observing city lights through a dense fog can be difficult if not impossible. Certainly the stars and planets would be even more difficult to observe.

Though this model cannot be totally labeled "unreasonable," it no doubt must be regarded as having a "foggy" disposition. A transparent canopy model concept would be more appropriate, and perhaps this was accomplished with the gaseous form of water vapor, steam.

Steam. First suggested by Morris and Whitcomb (99: 253-258) (130:34), this model proposes that the pre-Flood vapor canopy existed above the stratosphere in the form of superheated steam. It was also thought to extend from a base limit of 4-5 miles (99:257) to an outer limit of 106 miles (158:149), or beyond (89:132). But since the extensiveness of this vapor blanket would attenuate (scatter) all approaching starlight and sunlight (155:139-144), a more reasonable model containing forty feet of precipitable vapor is proposed (155:139).

The present ionosphere is hot enough (q.v.) to heat water vapor in the form of superheated steam, but it is much

too unstable to sustain the enormous quantities of water that a worldwide deluge would require. Therefore, how was the canopy maintained above the ancient atmosphere?

Dillow has shown that:

> In fact, there are two such physical mechanisms that would severely reduce eddy diffusion and convective turbulence and provide a stable regime in which the atmosphere could conceivably contain enormous amounts of water above what it is able to sustain today. These physical mechanisms are temperature inversion and Taylor stability (158:148).

Thus, a plausible superheated vapor canopy is demonstrated (158:148-159) (163:157-168), distinguishing itself from other canopy models with the following characteristics:

1. Hydrostatic equilibrium in the atmosphere through temperature inversion (158:148-150)--sufficiently high temperatures (+220^{o}F) are required to keep the water vapor above the saturation point. Otherwise, the weight (pressure) of the water would cause rain.

2. Transparent superheated steam in the canopy (158:155-158)--the reference to the "windows of heaven (Gen. 7:11)" was probably a very accurate description of the invisible pre-Flood canopy. From what the ancients could observe from the ground (and most historians agree that the ancients were ardent star observers), the canopy presumably really did resemble a window.

3. Mild ground temperatures (158:155-158)--returning infrared radiation from the ground, water vapor droplets under the canopy, and increased reflectivity (albedo=0.6)

of the tropopause (boundary of mixing separating the canopy from the troposphere) all prevented the earth from becoming a "pressure cooker." Consequently, more heat radiated from the canopy than from the earth.

4. Atmospheric equilibrium through Taylor stability (158:150-153)--in fluid mechanics, a liquid between two rotating concentric cylinders remains stable (i.e., in laminar flow) unto a critical point in which turbulent vertical mixing occurs. So similarly, the ancient earth may also have been "in laminar flow," producing only gentle weather conditions.

Like other suggestions of hypothetical canopies, the steam canopy model carries some of the same characteristics (absence of ozone from the troposphere, "greenhouse effect," etc.) as the other canopy suggestions. The superheated steam canopy's primary assumption is this: the pre-Flood atmosphere was remarkably different from the atmosphere that is observed today. And perhaps this assumption is this model's weakness. But it must also be counted as its strength if, indeed, the present atmosphere is different from the one of the past.

In the earth's present atmosphere, (1) there is no temperature inversion to hold water in the upper atmosphere, (2) clouds in the troposphere occasionally block the clearness of the sky, (3) lower reflectivity (albedo=0.39) causes more heat to be radiated from the earth than from the

atmosphere, and (4) atmospheric "jet streams," testifying to an atmosphere not in laminar flow, produce unstable weather conditions. Consequently, it can be difficult for some to picture the primordial earth in terms of a vapor canopy without considering its temperature too hot (174: 164-169). On this basis, a few have rejected all possibilities of non-supernatural canopy models (168:204) (194:90-93), pointing to the numerous supernatural aspects of the Genesis model. An exegetical basis for the steam canopy model has also been proposed (159:171-173). But was earth's primordial canopy much different than the one now surrounding the planet Venus?

It is Patten's contention that "even as the surface of Venus is hidden from the telescope and from the rays of the Sun, so in the previous age was the surface of our Earth also shielded from the direct rays of the Sun (107:195)." Venus is highly reflective (albedo=0.76). And space probes have discovered that heat transported by atmospheric convection keep polar and equatorial temperatures on Venus (+800°F) nearly the same (158:153). The condition of Venus shows that a canopy is definitely feasible. And if a canopy can exist on Venus, why couldn't a canopy also, at some time in the past, exist on earth?

A canopy must be considered a possibility in view of evidence affirming that the world has undergone extreme changes. The collapse of the water vapor canopy is offered

as a solution to these changes. Perhaps its collapse even affected the most taken-for-granted process in life: that is, aging.

Aging Under the Canopy

The fossil record points to an ideal world before the Flood. The canopy provided a stable warm climate. There were none of the various kinds of pollution, and there was no poisonous ozone to breathe. For what effect it may have given, the earth's magnetic field was substantially stronger. Cosmic radiation reaching the earth was shielded to a minimum (157:27-33). Bible scholars also contend that man also had the advantages of eating a cholesterol-free (vegetarian) diet, and living in harmony with the animals (89:36-37) (164:230-231). Living conditions were very pleasant.

As a result, all life lived to greater ages. Certain fossils of lizards, tigers, snails, and ferns grew to gigantic sizes. This obviously, by today's standards, must be attributed to their living a long life. Did man also live longer? Nobody really knows. But recorded history attests stories of men who lived to tremendous ages!

For even the most eager student of the Scriptures, it is hard to accept the extraordinary ages of those patriarchs mentioned as Noah's ancestors in the fifth chapter of Genesis. With the exception of Enoch (who did not die), they all lived more than 900 years as a rule. Harrington

writes, "ancient Babylonian traditions also knew of a list of ten kings (Alulin-Xisuthros) with fantastically long reigns, who lived before the deluge (84:45)." So a long life was common knowledge to the ancients who recorded this history. Modern science and medicine make the average twentieth century man's life expectancy to approach about 90 years. Is our world so cruel that we only live a fraction of what we would have lived if we had been born before the Flood?

The geneology of Noah and his ancestors listed in the eleventh chapter of Genesis would say that we live in a cruel world indeed. Cholesterol, mutation, and ozone--as well as infectious disease, shortwave radiation, and ferocious animals--took their toll early. Noah lived 950 years. But the ages of his kin drop drastically; in fact, as Patten ingeniously determined (107), exponentially through only the thirteen generations until Joseph (see Appendix B). The statistical validity of this exponential curve has been demonstrated (157:27-28). Joseph lived 110 years, and this is certainly comparable with the ages of modern man. Josephus, the Jewish historian, was familiar with other ancient accounts of longevity (many that are now lost). He wrote:

> But let no one upon comparing the lives of the ancients with our lives, and with the few years which we now live, think that what we have said of them is false; or make the shortness of our lives at present an argument, that

> neither did they attain to so long a duration of life, for those ancients were beloved of God, and made by God himself; and because their food was then fitter for the prolongation of life, might well live so great a number of years; and besides, God afforded them a longer time of life on account of their virtue, and the good use they made of astronomical and geometrical discoveries, which would not have afforded the time for fortelling the periods of the stars, unless they had lived six hundred years, for the great year is completed in that interval. Now I have for witnesses to what I have said, all those that have written Antiquities, both among the Greeks and Barbarians: for even Manetho, who wrote the Egyptian history, and Berosus, who collected the Chaldean monuments, and Mochus, Hesiaeus, and besides these, Hieronymus the Egyptian, and those that composed the Phoenecian history, agree to what I here say: Hesiod also, and Hecataeus, and Hellanicus and Acusilaus, and besides these, Ephorus and Nicolaus relate, that the ancients lived a thousand years. But as to these matters, let every one look upon them as they think fit (76:87-88).

It would seem that before modern man becomes proud with the services provided by advanced technology, he may do well to consider the wealth the ancients possessed, namely time.

Perhaps those patriarchs were like those giant prehistoric ferns. For reasons nobody is sure of, we just age faster in a modern world.

The Ancient Sky

A vapor canopy, some critics say, would cause the total exclusion of starlight (109:24) (168:202-206). Indeed this would be true if the vapor canopy were thousands of feet thick (194:90-93). But the mechanics of a limited canopy model have been demonstrated (158:148-159), and since the Genesis account seems to imply that ancient men could actually see the stars (Gen. 1:16), it is reasonable to

assume that not all starlight was attenuated (scattered) by the canopy. So what did the ancient sky look like to the antediluvian observer?

Increased amounts of water droplets postulated by the vapor canopy would increase the attenuation of visible radiation in the ancient sky. In effect, (1) the sun would be less intense, and be more likely to appear red than yellow (especially producing redder sunsets), (2) during the day, the sky would be a darker shade of blue, and (3) only stars of a brighter magnitude could be seen with the naked eye, and then only at an increased angle above the horizon.

Dillow has approximated the visibility of the pre-flood heavens (155:139-144), and suggests what the effect of a change of appearance in the sky would have on post-flood mythology (155:144-146). A brighter sun, and additional multitudes of stars presented striking changes to the post-flood descendants. The peculiar theme of "sun ages" is noted to appear in many ancient myths in regard to sun-worship (128:50-52). And astrology (i.e., the worship of the stars), though it has not kept pace with modern astronomy (122:47), should not be dismissed lightly (fads don't last thousands of years). Dillow concludes:

> Much of the religion of the ancient Near East was devoted to getting the stars, the moon, and the sun on the side of the worshipper by means of magic. They concluded that the stars affect conditions on earth. Why did they draw this conclusion? Could it be that after the greatest flood and cataclysmic destruction that mankind ever knew, over 2000 new stars appeared in

> the heavens? Like the victorious sun, the stars (i.e., the present gods) were victorious over the forces of chaos and restored order to a shattered planet, so people reasoned. Surely, they must control the destinies of man!
>
> Whether or not this explains the origin of astrology is of course, debatable. What is clear, however, is that the first recorded general event after the flood in the Bible is the rebellion at the Tower of Babel. There is no mention of astrology or sun worship prior to the flood. Yet suddenly, men are worshipping the stars. Why? The changed appearance of the post-diluvian heavens may suggest the answer (155:145).

The Apostle Paul wrote in connection with the corruption of the sons of Noah: "Professing to be wise, they became fools and exchanged the glory of the incorruptible God for an image in the form of corruptible man, and of birds and four-footed animals and crawling creatures (Rom. 1:22-23)." Thus the post-diluvians worshipped "images," but not necessarily in the sense that the images were statues. It may be suggested that they worshipped constellations (e.g., Orion, Pegasus, the Great Bear, Scorpio, etc.), recognizing them as their gods. In a modern world, star-worship seems more subtle. It is more likely to be syndicated in newspaper columns or sold in occult book stores. But, in fact, it has been estimated that in the United States alone, professional astrologers outnumber professional astronomers five to one (50:47).

It appears that the collapse of the canopy caused quite an uproar in the post-flood era that is still felt in modern times. How the vapor canopy collapsed will now be considered.

Condensation and Precipitation of the Water Vapor Canopy

If the earth's topography were smoothed, there would be enough water to cover the entire world to a depth of nearly two miles (97:88) (180:132). With such a vast amount of water now in the oceans, it is probable that some of this water was formerly stored in the water vapor canopy surrounding the pre-deluge earth. Why is most of the water presently contained in the ocean instead of the canopy? And what caused the canopy to collapse?

Most geologists generally agree that the earth of the past was a world of tremendous mountain uplifting and tumultuous volcanism. With this in mind, it is suggested:

> The volcanic dust particles, combined with the upswelling turbulence, could well have provided the condensation nuclei and temperature changes necessary to induce the condensation and precipitation of the canopy (97:89).

Volcanic dust not only permeated the canopy blanket, but may have also cast a cooling volcanic cloud over the canopy (158:152); see Figure 10 on page 89. Drastically reduced temperatures would result, causing an interruption of laminar atmospheric flow, and ultimately precipitating extensive rainfall. The cooling effect of volcanic dust has been observed on a smaller scale in recent times (3:34). But no less remarkable is the amount of steam observed to emanate from erupting volcanoes.

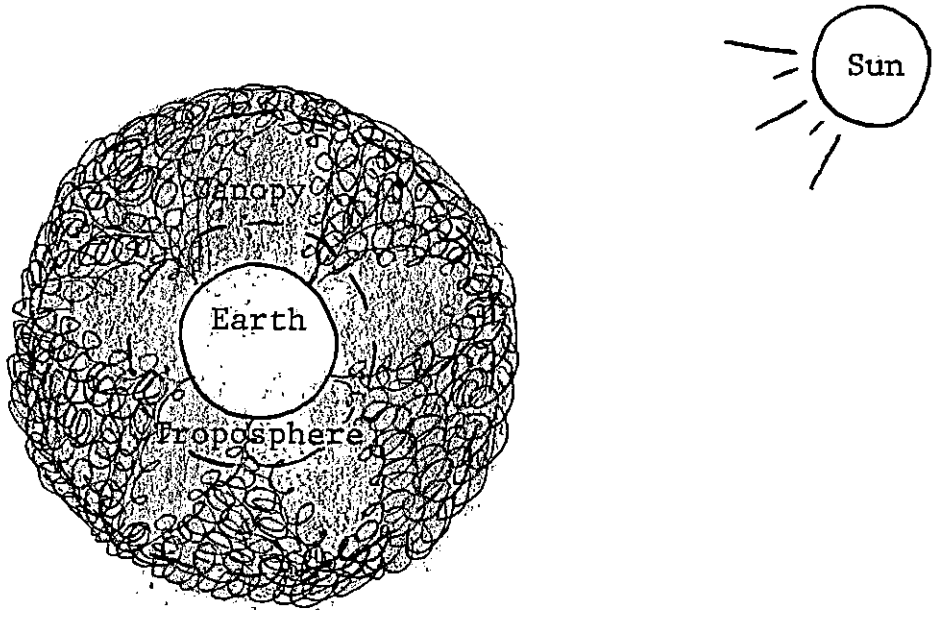


Figure 10

The Cooling Volcanic Cloud
Over the Canopy
(drawing not
to scale)

That active volcanoes emit steam in quantities almost beyond belief is a fact confirmed by observation (110:30). This steam normally comes under pressure from the water contained in the earth's core, and this was probably true in the age of the Flood. According to Humphreys, "if the core were indeed the source, the steam would penetrate to the upper atmosphere and beyond (166:143)." This water would then be expected to precipitate as heavy rain, as well as disrupt the vapor canopy causing it to precipitate.

Most creationists know a Biblical passage that describes the immense size and extent of the underground waters that fed the volcanoes of the early earth: "In the six hundredth year of Noah's life, in the second month, the seventeenth day of the month, the same day were all the fountains of the great deep broken up, and the windows of heaven were opened (Gen. 7:11)." This verse describes the sources of the Genesis Flood waters. As already discussed, the "windows of heaven" very likely described the water vapor canopy. But what is meant by the "fountains of the great deep?"

It is quite reasonable that the phrase, "the fountains of the great deep," alludes to the great bodies of sub-crustal water stored under tremendous pressure (89:64). A fissure in the crust normally causes a volcano. Just as the transparent vapor canopy was called, "the windows of heaven," perhaps the reference to "fountains" was an accurate description of erupting volcanoes; see Figure 11 on page 91. Maybe to the ancients, emission of dust, magma, and steam from volcanoes really did resemble water spraying from a fountain. Morris and Whitcomb write:

> In fact, the volcanic dust discharged into the air by the intense volcanic activity near the beginning of the Pleistocene has been one of the main theories advocated as an explanation of the glacial age. It may well have been a contributing factor, along with the removal of the thermal blanket by the Flood, to the initiation of the actual glaciation (99:308).

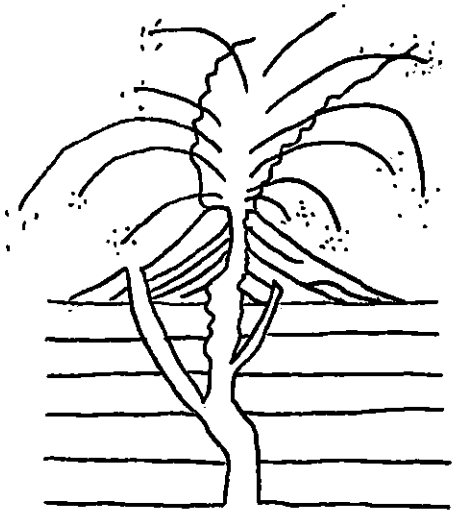


Figure 11

Erupting Volcano Possibly
Synonymous in Reference
to "Fountains"

It appears that the effect of large-scale volcanic activity may have caused the loss of earth's canopy blanket, and likely initiated the Flood and the Ice Age. There is no better supportive evidence to this claim than the effects of this catastrophe--effects for which proponents of evolution offer no cause or solution: the mammoths, and the migration and hibernation of animals. First considered will be the reality of the mammoths.

Additional Flood Effects With No Evolutionary Cause or Solution

The Mammoths

According to Nelson:

> The natives who live in the region of the Lena River (in Siberia) make a living traveling up and down that river in boats, gathering up the ivory tusks that they see sticking out of the cliffs on the sides of the river and which they find fallen to the edge of the water (104:123).

Remarkably, a single ivory mine in Siberia reportedly harvested twenty thousand tusks (108:128). "Concerning mammoth bones in Russia, Pallas claimed that there was not a river bed in all Russia, from the Don to the Bering Strait, which did not contain mammoth bones (108:129)." West of the Don River and on the Arctic islands, there are places found having so many mammoth remains that, said Howorth, "the ground might be said to consist entirely of mammoth bones (104:123)." The Danish Arctic explorer, Vitus Bering, reported that Bear Island was "composed of two ingredients, mammoth remains and sand. But the predominant ingredient was mammoth bones (108:128)." Likewise, the muck of mammoth remains continues into northern and western Alaska. Though mammoth bones are also found in England, Belgium, Italy, and generally throughout the world (104:127-128), it has been observed that oddly enough, "the farther one goes north, the more numerous are the mammoth remains (108:129)."

How is it that in Siberia and Alaska--lands covered with damp moss that only occasionally grows a few flowers and otherwise is locked in ice--subtropical animals requiring a warm climate and vast amounts of plants as food per day (mammoths, elephants, horses, lions, rhinoceroses, oxen, bison, etc.) once lived and suddenly died in almost countless hordes? The answer to this question may prove to be one of the most fascinating in the whole range of Natural History.

That Pleistocene extinctions were a gradual process enduring thousands or millions of years is commonly held. But the uniformitarian view gets into deep trouble when the extinction of the mammoths is examined. For Darwin, the mammoths presented an insoluble problem (127:6). Lyell also detected that the mammoths jeopardized his theory, and he attempted to explain them away, advocating that they were trapped swimming during a cold snap; which does not agree with the facts (88:115). Others of an evolutionary persuasion would explain that the reason for this lies in the theory of continental drift taking many thousands of years (33). But McGowen comments: "Well, that is a very nice theory but much more spectacular and unbelievable than that of a world-enveloping canopy of water which allowed tropical life to thrive right there in the arctic lands (89:35)."

It is not the scope of this report to refute the continental drift model. But the continental drift (Peleg's

division?; cf., Gen. 10:25) seems easier to resolve in view of catastrophe than slow change (192:7-15). To assume that all those mammoth fossils got above the Arctic Circle (or to say that all that coal got to Antarctica, or oil to Alaska) on account of those once tropical lands drifted to a frozen environment becomes highly incredible. In fact, when considering the carcasses found, it will be shown that those continents would be required to have drifted extremely fast!

Whole undecomposed carcasses of prehistoric fauna have been found in the permafrost of Siberia. Many mammoths still retain lifelike stares in the flaccid tissue of their open eyes (90:56) (110:45). Some mammoths are even found frozen in a kneeling or standing position (129:25) (130:77)! So well preserved are the mammoth bodies in the perpetually frozen tundra that dogs (17:129) (90:56), wolves (156:5), bear (156:5), and even in some cases, humans (123:ix) (156:6) can feed on them. Hapgood reports: "Joseph Barnes, a former correspondent with the New York Herald Tribune, testified to having been served mammoth steak at the Russian Academy of Sciences in Moscow in the 1930s (31:261)." That must have been one amazingly distinctful steak dinner! But even more amazing is the fact that in the stomachs of the thirty-nine mammoth hulks actually examined thus far are undigested, tropical plants and in their mouths unchewed, unswallowed tropical plants--including bean pods and flower

petals. How did those dainty flower petals, that do not grow within thousands of miles of Siberia, get into a mammoth's stomach and remain untarnished by the acidity therein? To further illustrate this problem, consider the Beresovka mammoth.

Perhaps, the most celebrated of the mammoths was the one found frozen in an icy cliff of the Beresovka River in Siberia in 1901. Its stomach and mouth contained twenty-four pounds of undigested vegetation (including flower petals), easily identified and compiled by Sukachev, Ferrand, Osborn, and Case, and listed by Dillow (156:6-8). Blood showed characteristics of retaining oxygen (17:132), and its hair, skin, and flesh were as fresh as when the animal had originally died (156:6). Dillow, with the assistance of engineers from the Birds Eye Corporation, updated studies concerning the effects of mammoth (nonruminant) stomach acidity, and the thermophysical properties of mammoth meat (156:8-11). Dillow concluded:

> It is clear that for the Beresovka mammoth, some violent climatic upheaval is the only explanation for these remains. The animal was peacefully grazing on summer buttercups in late July and within one half hour of ingestion of his last lunch, he was overcome by temperatures in excess of -150°F. He was killed soon after and frozen to death in the middle of the summer. Furthermore, he never completely thawed out until he fell out of a riverbank in 1901. Thus, whatever climatic upheaval caught him permanently changed the climatic conditions of the tundra. Certainly, here is clear evidence of the sudden deep-freeze posited by so many students of the mammoth question for the past two centuries (156:12).

It was later discovered after a closer examination of the original Russian publication that the accumulation of buttercups was inferred, not from petals, but more specifically from seeds; with the distinction apparent, for seeds are probably to have been more resistant to the mammoth's nonruminant stomach acidity (147:101). But the petals of another flower (Alopecurus alpinas), and not common buttercups (Ranunculus acris L.), were found. According to Dillow in this correction, "it is true that the action of stomach acids on them has not yet been tested; but it seems likely that they, too, can furnish good evidence that the carcass must have cooled very quickly (147:101)."

Obviously, something of a catastrophic nature once intervened in the northern polar regions. The evolution model, because of its uniformitarian assumptions, offers no cause or solution to whatever happened. It is estimated that "about 5 million mammoths have been discovered buried, scattered and mashed in the frozen tundras of that part of the world (129:26)." To the creationist who accepts the concept of canopy collapse, the mammoths should not come as a surprise.

The mammoth is no more a separate species of elephant than the Angora cat is a separate species of cat. An elephant is still a pachyderm, whether it has hair or not.

But when the facts of these multitudes of "Angora elephants" are considered, they seem almost incredible!

One of the most remarkable mysteries of nature is found in the mammoths. For as the saying goes, truth can indeed be "stranger than fiction."

Migration

Some of the most interesting mysteries of nature are found in the migration of marine and bird life. For reasons unknown (26:154-193), certain species of fish and birds periodically abandon their natural habitat, traversing large distances to another place of refuge, only to come back again to the same original habitat they had occupied before. Among the most remarkable migratory aquatic creatures include turtles, eels, plankton, smelt, tuna, salmon, and whales. But the migration of birds is more spectacularly evident.

Any waterfowl hunter will agree that the annual flights of wild ducks and geese are truly magnificent sights. Likewise, the returns of swallows, wrens, and robins are always welcomed by nature lovers as the first signs of spring. But few waterfowl devotees or other nature enthusiasts know just how far these creatures actually fly in their innate wanderlust. For illustration, consider that the swallow, as well as the bobolink of the Great Lakes region, "travel all the way to the pampas of Argentina for their winter vacations, requiring about 18,000 miles of flying for the round trip (15:168-169)." But the greatest globe-trotter of them all is the arctic tern, whose migratory habits are best described in the following manner:

> The arctic tern nests in the extreme northern edge of the North American continent, all the way from Alaska to Greenland. But when the short arctic summer has come to an end, the parent birds with their young start their journey southward and do not stop until they reach the southern tip of South America, which means a flight of about 22,000 miles for one season. That is almost equal to the distance around the world at the equator, and these birds make that trip every year (111:169).

Often, selected birds are set with bands, and turned loose to fly their migration routes--only to be captured in the same trap the ensuing year. How is it that after flying thousands of miles, these birds still manage to return to the exact same nesting place? What timetable do they follow? Why does each species of bird have its own peculiar method of flying, requiring unimaginable muscle endurance? And how do they detect their way over uncharted courses in various weather conditions (even at night) generation after generation?

There are no rational or evolutionary answers to these questions, or of similar questions asked of aquatic migration. Evolution offers no cause or solution to these mysteries. Creation offers no solution either, but does suggest possibilities.

The first possibility is that birds and marine life were created, right from the start, with migration instincts intact. Since the common evolutionary assumptions (i.e., life evolving through species barriers, ages of time, etc.) are not required, this point is brought up with no apprehension as to how or when the migration instinct evolved.

Secondly, remember the more unique and specific creation model: the Genesis model. Two of every living thing entered the ark. Though Scripture is not explicit as to how all these species of animals got to the door of the ark, one can speculate as to how it happened. Did Noah and his family perform a colossal roundup? Probably not. What would seem more reasonable is that God placed the migration instinct in all animals (89:75) to go "two and two unto Noah into the ark, the male and the female, as God had commanded Noah (Gen. 7:9)." Perhaps this is why some animals (especially those created on the fifth day) continue to migrate. They are only persevering in what was formerly demanded of them.

Regardless of whether these explanations are to be taken seriously, the fact remains that certain species of life still migrate to this day.

Hibernation

Another remarkable mystery of nature is the hibernation of animals. When animals hibernate, they enter an extreme state of sleep where eating, drinking, and elimination of body wastes are unnecessary. Most reptiles and amphibians hibernate; as do bears, ground squirrels, and poorwills (a bird species).

Again, evolution offers no cause or solution to this mystery. Creation offers no solution either, but does propose interesting possibilities.

As with migration instincts, perhaps animals were created, right from the start, with hibernation capabilities intact. Understandably, there is no reason why hibernation would have evolved.

Another possibility is derived from the Genesis model; that is, maybe God placed the hibernation instinct in all animals just prior to the Deluge. Animals' reproductive instincts and bodily functions would then have been conveniently controlled (130:32). "Hibernation then would have served Noah's purpose very well (89:76)."

Whether these explanations are sensible or too assumptive, the fact remains that certain species of life still hibernate to this day. It almost goes to say that animals with migration and hibernation habits seem to carry an ingrained, lingering memory of past events--circumstances not forgotten with the passage of time.

Evidence From Tradition

Unforgotten Memories

If such an event as a totally inundating worldwide flood ever really occurred in the past, the memory of such a catastrophe would long remain ingrained among traditions of the widely separated and primitive peoples of the world. Moreover, memories of such an episode would not be forgotten in the course of tribal migrations, if all men really descended from the sole survivors. Children of the survivors

would be rehearsed with the flood story, as would priestly warnings concerning offenses against the deity be recorded. Possibly, the flood would even be commemorated somehow in images. Not only would memory of such a tragedy be expected, but when cultures from around the world are examined, this unforgettable parallelism is precisely what is found in almost all traditions.

A great deal of research material has been published in discussion of the over 200 various flood traditions, and these accounts are listed (87:233-236). Additional sources establishing relationships and patterns are also listed (87:241), many with their own annotated bibliographies.

Much can be learned from a systematic study of the world's flood traditions. Most remarkable are the similarities in these legends.

Similarities

In most of the Deluge legends from around the world, details vary greatly; but similarities make it clear that the basic story is still present. Elements of these various traditions have so much in common that it is not reasonable to suppose they happened by chance (90:14). Points of similarity of many Flood traditions are graphically pictured in the chart in Figure 12, page 102; extended in part, from a similar illustration by Byron C. Nelson in The Deluge Story In Stone (Minneapolis: Augsburg, 1931, figure 38,

Figure 12

A List Of Flood Traditions Comparing Principal Features Of The Hebrew Biblical Record With Similarities From Non-Biblical Traditions

(photostatically reduced)

Key.

X = full representation of Biblical data

/ = partial representation of Biblical data

Principal Features Of The Biblical Record: Man In Transgression; Divine Destruction; Favored Family; Ark Provided; Destruction By Water; Seed Saved Human; Seed Saved Animal; Universal Destruction; Landing On Mountain; Birds Sent Out; Survivors Worship; Divine Favor On Saved

Principal Features Of The Biblical Record	ref
Assyrio-Babylonia I	(107)
Assyrio-Babylonia II	(107)
Persia I	(107)
Persia II	(107)
Syria	(107)
Asia Minor	(107)
Hellenic (Greece) 2!	(77)
(89)	(107)
Egypt I	(107)
Egypt II	(107)
Egypt III	(29)
Sudan	(114)
Masai (Kenya)	(106)
Hottentot (S. Africa)	(114)
Nama Hottentot (SA) II	(77)
Basuto (Congo)	(77)
Yorubas (Nigeria) I	(77)
Yorubas (Nigeria) II	(77)
Italy 2 (77)	(107)
Lithuania	(107)
Wales	(107)
Scandinavia I	(107)
Scandinavia II	(107)
Celt (Ireland)	(77)
Lapland	(107)
Hungary	(106)
Russia I	(107)
Votyaks (Russia II)	(77)
Ostyaks (Russia III)	(77)
India I	(107)
India II	(107)
Bhils (India III)	(29)
Hos (India IV)	(29)
Kamars (India V)	(29)
Sikkim	(29)
Anals (Assam)	(29)
Lushais (Assam)	(29)
Singphos (Assam)	(29)
Singphos (Burma)	(29)
Karens (Burma)	(77)
Vietnam	(77)
Bannavs (Laos)	(29)
China I	(107)
Bahnars (China II)	(29)
Lolos (China III)	(29)
Kamchadales (China IV)	(29)
Japan	(93)
Malaysia	(29)
Benua-Jakun (Malaysia)	(29)
Sumatra I	(107)
Bataks (Sumatra II)	(29)
Nias	(29)
Engano	(29)
Dyaks (Sarawak I)	(29)
Dyaks (Sarawak II)	(29)
Ot-Danoms (Borneo)	(29)
Celebes	(29)
Alfoors (Ceram)	(29)
Neges (Flores)	(29)
Rotti	(29)
Atas (Mindanao)	(29)
Ifugas (Kiangan)	(29)
Ami (Taiwan) J	(29)
Kabadi (New Guinea)	(29)
Mamberao (New Guinea)	(29)
Valmans (New Guinea)	(29)

Principal Features Of The Biblical Record (continued)	ref
Alamblak (New Guinea)	(109)
New Hebrides	(29)
Lifu	(29)
Eimeo	(29)
Tahiti	(29)
Leeward Islands	(107)
Fiji I	(107)
Fiji II	(107)
Andaman Islands	(107)
Hawaii	(107)
Samoa	(106)
Maori (New Zealand I)	(29)
Maori (New Zealand II)	(29)
Pelew Islands	(29)
Australia (Victoria) I	(29)
Australia (L. Tyers) II	(29)
Kurnai (Australia III)	(29)
Kolushes (Alaska)	(107)
Alaskan Eskimo	(106)
Arctic Eskimo	(93)
Thlinkut (Canada) I	(107)
Thlinkut (Canada) II	(107)
Cree (Canada)	(107)
Montagnais (Canada)	(29)
Hareskins (Canada)	(29)
Tinneh (Canada) I	(29)
Tinneh (Canada) II	(29)
Tsimshians (Canada)	(29)
Kaska (Canada)	(29)
Esquimaux (Canada)	(107)
Innuits (Greenland I)	(29)
Mkulwe (Greenland II)	(29)
Greenland III	(29)
Greenland IV	(29)
Cascades (USA)	(29)
Spokanes (USA)	(29)
Nez Perce (USA)	(29)
Cayusas (USA)	(29)
Yakimas (USA)	(29)
Flathead (USA)	(29)
Cherokee (USA)	(107)
Mandan (USA)	(107)
Lenni Lenape (USA)	(107)
Tahoe (USA)	(107)
Luseno (USA)	(29)
Maidu (USA)	(75)
Choctaw (USA)	(29)
Natchez (USA)	(29)
Algonquins (USA)	(106)
Iroquois (USA)	(106)
Hurons (USA)	(106)
Mexico (pre-columbian)	(106)
Papagos (Mexico)	(107)
Pimas (Mexico)	(107)
Toltecs (Mexico)	(107)
Aztecs (Mexico)	(107)
Michoacan (Mexico)	(107)
Huichols (Mexico)	(29)
Coras (Mexico) I	(29)
Coras (Mexico) II	(29)
Tarahumares (Mexico)	(29)
Cuba	(93)
Nicaragua	(107)
Panama	(29)
Orinoco River (Ven-Col)	(29)
Arawaks (Guyana)	(29)
Purus River (Brazil) 3	(29)
Coroados (Brazil)	(29)
Carayas (Brazil)	(106)
Tuscaroras (Brazil)	(107)
Canari (Ecuador)	(106)
Jibaros (Peru I)	(29)
Incas (Peru II)	(29)
Peru III	(107)
Chiriguanos (Bolivia)	(29)
Araucanians (Chile)	(106)
Tierra del Fuego	(29)

page 169). The majority of the Deluge tales were analyzed from the alternate sources indicated, and scored through the opinion of this writer.

Each collection of flood traditions will vary. But some estimate that there are over 500 different flood legends throughout the world (38:28-29) (75:58). So what does the foregoing collection illustrate?

Nelson noted from his similar chart that: "There is almost complete agreement in the three main features: 1) an ark or other vessel as a means of safety; 2) a universal destruction of living things by water, and; 3) a seed of mankind preserved (103:167)." All other less primary features supplement the main features in a roundabout way. Simply stated, what one flood tradition lost, another retained. It becomes obvious that these similarities cannot be explained on a local basis.

The Possibility of Missionary Influence

Doubters of the global flood model normally point to missionary activity as the source of all the various flood legends. And, in fact, in at least a few documented cases, missionary activity can be blamed for indoctrinating a few cultures with the Genesis account. However, this excuse must be logically rejected for several reasons:

1. Missionaries spread gospel, not Jewish history. If missionaries indeed taught with a flavor for the

miraculous, similar equally worthy accounts from the Old Testament (including the destruction of Sodom and Gomorrah, the plagues of Egypt, the crossing of the Red Sea, Jonah and the whale, etc.) should also appear in the different cultural folklores. That such stories do not appear is a testimony that those stories did not come to the different cultures. Interestingly, legends of the confusion of tongues are found coexisting with many of the global flood legends (29:132-138) (187:97-101). This would be expected if the confusion of languages preceded the complete dispersion of ethnic groups.

2. Flood traditions were compiled by men whose interests were entirely anthropological. For that matter, many of the flood myths were recorded by men who considered the Hebrews their adversaries.

3. The various differences of details, especially in the traditions of primitive cultures, do not indicate a recent indoctrination of Christianity. Missionaries have not been contacting isolated tribes indefinitely. It would be unthinkable that these tribes could take the Genesis story and corrupt it by accommodating it to their own culture so quickly.

Reasonably, the degree that missionary influence affected the flood traditions must be considered negligible. It rather appears that each tradition grew from an ancient original. The problem now becomes--taking into account over

two hundred global flood traditions, which one came first? It is generally agreed by most evolutionists and creationists that both the Sumero-Babylonian account and the Genesis account are two of the most ancient traditions of origins. And evidence supports this conviction (see Appendix C).

The Hebrew Narrative

The following flood account is taken from The King James Version of the Bible (Gen. 6:1-9:2, 9:6-9:19, 11:1-9), and can also be found replicated by LaHaye and Morris (87: 221-230). This is the story of the Flood according to the ancient Hebrew tradition:

> And it came to pass, when men began to multiply on the face of the earth, and daughters were born unto them, that the sons of God saw the daughters of men that they were fair; and they took them wives of all which they chose. And the Lord said, My spirit shall not always strive with man, for that he also is flesh: yet his days shall be an hundred and twenty years. There were giants in the earth in those days; and also after that, when the sons of God came in unto the daughters of men, and they bare children to them, the same became mighty men which were of old, men of renown.
>
> And God saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually. And it repented the Lord that He had made man on the earth, and it grieved Him at His heart. And the Lord said, I will destroy man whom I have created from the face of the earth; both man and beast, and the creeping thing, and the fowls of the air; for it repenteth me that I have made them. But Noah found grace in the eyes of the Lord.
>
> These are the generations of Noah: Noah was a just man and perfect in his generations, and Noah walked with God. And Noah begat three sons, Shem, Ham, and Japheth. The earth also was corrupt before God, and the earth was filled with violence. And God looked upon the earth, and, behold, it was corrupt; for all flesh had corrupted

his way upon the earth. And God said unto Noah, The end of all flesh is come before me; for the earth is filled with violence through them; and, behold, I will destroy them with the earth.

Make thee an ark of gopher wood; rooms shalt thou make in the ark, and shalt pitch it within and without with pitch. And this is the fashion which thou shalt make it of: the length of the ark shall be three hundred cubits, the breadth of it fifty cubits, and the height of it thirty cubits. A window shalt thou make to the ark, and in a cubit shalt thou finish it above; and the door of the ark shalt thou set in the side thereof; with lower, second, and third stories shalt thou make it. And, behold, I, even I, do bring a flood of waters upon the earth, to destroy all flesh, wherein is the breath of life, from under heaven; and every thing that is in the earth shall die. But with thee will I establish my covenant; and thou shalt come into the ark, thou, and thy sons, and thy wife, and thy sons' wives with thee. And of every living thing of all flesh, two of every sort shalt thou bring into the ark, to keep them alive with thee; they shall be male and female. Of fowls after their kind, and of cattle after their kind, of every creeping thing of the earth after his kind, two of every sort shall come unto thee, to keep them alive. And take thou unto thee of all food that is eaten, and thou shalt gather it to thee; and it shall be for food for thee, and for them. Thus did Noah; according to all that God commanded him, so did he.

And the Lord said unto Noah, Come thou and all thy house into the ark; for thee have I seen righteous before me in this generation. Of every clean beast thou shalt take to thee by sevens, the male and his female: and of beasts that are not clean by two; the male and his female. Of fowls also of the air by sevens, the male and the female; to keep seed alive upon the face of all the earth. For yet seven days, and I will cause it to rain upon the earth forty days and forty nights; and every living substance that I have made will I destroy from off the face of the earth. And Noah did according unto all that the Lord commanded him. And Noah was six hundred years old when the flood of waters was upon the earth.

And Noah went in, and his sons, and his wife, and his sons' wives with him, into the ark, because of the waters of the flood. Of clean beasts, and of beasts that are not clean, and of fowls, and of every thing that creepeth upon the earth, there went in two and two

unto Noah into the ark, the male and the female, as God had commanded Noah. And it came to pass after seven days, that the waters of the flood were upon the earth.

In the six hundredth year of Noah's life, in the second month, the seventeenth day of the month, the same day were all the fountains of the great deep broken up, and the windows of heaven were opened. And the rain was upon the earth forty days and forty nights. In the selfsame day entered Noah, and Shem, and Ham, and Japheth, the sons of Noah, and Noah's wife, and the three wives of his sons with them, into the ark; they, and every beast after his kind, and all the cattle after their kind, and every creeping thing that creepeth upon the earth after his kind, and every fowl after his kind, every bird of every sort.

And they went in unto Noah into the ark, two and two of all flesh, wherein is the breath of life. And they that went in, went in male and female of all flesh, as God had commanded him and the Lord shut him in. And the flood was forty days upon the earth; and the waters increased, and bare up the ark, and it was lift up above the earth. And the waters prevailed, and were increased greatly upon the earth; and the ark went upon the face of the waters. And the waters prevailed exceedingly upon the earth; and all the high hills, that were under the whole heaven, were covered. Fifteen cubits upward did the waters prevail; and the mountains were covered. And all flesh died that moved upon the earth, both of fowl, and of cattle, and of beast, and of every creeping thing that creepeth upon the earth, and every man: all in whose nostrils was the breath of life, of all that was in the dry land, died. And every living substance was destroyed which was upon the face of the ground, both man, and cattle, and the creeping things, and the fowl of the heaven; and they were destroyed from the earth: and Noah only remained alive, and they that were with him in the ark. And the waters prevailed upon the earth an hundred and fifty days.

And God remembered Noah, and every living thing, and all the cattle that was with him in the ark: and God made a wind to pass over the earth, and the waters assuaged; the fountains also of the deep and the windows of heaven were stopped, and the rain from heaven was restrained; and the waters returned from off the earth continually: and after the end of the hundred and fifty days the waters were abated.

And the ark rested in the seventh month, on the seventeenth day of the month, upon the mountains of Ararat. And the waters decreased continually until the tenth month: in the tenth month, on the first day of the month, were the tops of the mountains seen.

And it came to pass at the end of forty days, that Noah opened the window of the ark which he had made: and he sent forth a raven, which went forth to and fro, until the waters were dried up from off the earth. Also he sent forth a dove from him, to see if the waters were abated from off the face of the ground; but the dove found no rest for the sole of her foot, and she returned unto him into the ark, for the waters were on the face of the whole earth: then he put forth his hand, and took her, and pulled her in unto him into the ark. And he stayed yet another seven days; and again he sent forth the dove out of the ark; and the dove came in to him in the evening; and, lo, in her mouth was an olive leaf pluckt off: so Noah knew that the waters were abated from off the earth. And he stayed yet other seven days; and sent forth the dove; which returned not again unto him any more.

And it came to pass that in the six hundredth and first year, in the first month, the first day of the month, the waters were dried up from off the earth: and Noah removed the covering of the ark, and looked, and, behold, the face of the ground was dry. And in the second month, on the seven and twentieth day of the month, was the earth dried.

And God spake unto Noah, saying, Go forth of the ark, thou, and thy wife, and thy sons, and thy sons' wives with thee. Bring forth with thee every living thing that is with thee, of all flesh, both of fowl, and of cattle, and of every creeping thing that creepeth upon the earth; that they may breed abundantly in the earth, and be fruitful, and multiply upon the earth. And Noah went forth, and his sons, and his wife, and his sons' wives with him: every beast, every creeping thing, and every fowl, and whatsoever creepeth upon the earth, after their kinds, went forth out of the ark.

And Noah builded an altar unto the Lord; and took of every clean beast, and of every clean fowl, and offered burnt offerings on the altar. And the Lord smelled a sweet savour; and the Lord said in His heart, I will not again curse the ground any more for man's sake; for the imagination of man's heart is evil from his youth; neither will I again smite any more every thing living,

as I have done. While the earth remaineth, seed time and harvest, and cold and heat, and summer and winter, and day and night shall not cease.

And God blessed Noah and his sons, and said unto them, Be fruitful, and multiply, and replenish the earth. And the fear of you and the dread of you shall be upon every beast of the earth, and upon every fowl of the air, upon all that moveth upon the earth, and upon all the fishes of the sea; into your hand are they delivered.

And God spake unto Noah, and to his sons with him, saying, and I, behold, I establish my covenant with you, and with your seed after you; and with every living creature that is with you, of the fowl, of the cattle, and of every beast of the earth with you; from all that go out of the ark, to every beast of the earth. And I will establish my covenant with you; neither shall all flesh be cut off any more by the waters of a flood; neither shall there any more be a flood to destroy the earth. And God said, this is the token of the covenant which I make between me and you and every living creature that is with you, for perpetual generations: I do set my bow in the cloud, and it shall be for a token of a covenant between me and the earth. And it shall come to pass, when I bring a cloud over the earth, that the bow shall be seen in the cloud: And I will remember My covenant, which is between Me and you and every living creature of all flesh; and the waters shall no more become a flood to destroy all flesh. And the bow shall be in the cloud; and I will look upon it, that I may remember the everlasting covenant between God and every living creature of all flesh that is upon the earth. And God said unto Noah, this is the token of the covenant, which I have established between Me and all flesh that is upon the earth.

And the sons of Noah, that went forth of the ark, were Shem, and Ham, and Japheth: and Ham is the father of Canaan. These are the three sons of Noah: and of them was the whole earth overspread.

And the whole earth was of one language, and of one speech. And it came to pass, as they journeyed from the east, that they found a plain in the land of Shinar: and they dwelt there. And they said one to another, go to, let us make brick, and burn them throughly. And they had brick for stone, and slime had they for mortar. And they said, go to, let us build us a city and a tower, whose top may reach unto heaven; and let us make us a

> name, lest we be scattered abroad upon the face of the whole earth. And the Lord came down to see the city and the tower, which the children of men builded. And the Lord said, behold the people is one, and they have all one language; and this they begin to do: and now nothing will be restrained from them, which they have imagined to do. Go to, let us go down, and there confound their language, that they may not understand one another's speech. So the Lord scattered them abroad from thence upon the face of all the earth: and they left off to build the city. Therefore is the name of it called Babel; because the Lord did there confound the language of all the earth; and from thence did the Lord scatter them abroad upon the face of all the earth.

Not only have many non-Biblical authors (e.g., Berossus, Lucian, Plato, Apollodores, Ovid, Philo, Manetho, Mohammed, Josephus, etc.) written of a great flood, but such Biblical notables as Moses, Isaiah, Samuel, Job, Ezekiel, Matthew, Luke, Paul, Peter, and Jesus all spoke of Noah or the Flood as indisputable historical fact. Other verses compiled (90:21) speak of the Flood, but without mentioning Noah's name specifically. For instance, in referring to the coming of the Son of man, Jesus is quoted by Matthew designating that He believed in Noah, the Flood, and the ark:

> But as the days of Noe were, so shall also the coming of the Son of man be. For as in the days that were before the flood they were eating and drinking, marrying and giving in marriage, until the day that Noe entered into the ark, And knew not until the flood came, and took them all away; so shall also the coming of the Son of man be (Matthew 24:37-39).

A similar verse can also be found written by Luke (Luke 17: 26-27). Most critics would consider such a mass of witnesses very convincing evidence that there really was a great flood.

It is noted as a general rule that the further a culture migrated from the Hebrew influence (including Mount Ararat and later, Babel), the more the memory of the Flood varies from the original. Some representative flood traditions shall be reviewed to compare with the Genesis account, beginning with the highly-acclaimed Babylonian translation.

The Babylonian Flood Tradition

Translations of the Babylonian and Sumerian story of the Flood can be found recorded (25:108-113) (75:40-41) (102:99-102) (104:170-174) with slight variation. The oldest detailed account, based on earlier scripts, is The Epic of Gilgamesh. In The Deluge and Noah's Ark (44), Parrot sums up the following highlights from the Gilgamesh epic translated by Van der Ziel (126:121):

1. The gods decide to destroy mankind for their sins.

2. The god Ea warns Utnapishtim and commands him to build a ship.

3. Animals and all living creatures should be brought into the ship.

4. The flood comes, it lasts six days and seven nights.

5. All mankind returns to clay.

6. The ship rests on the mountains of Nisir in Kurdistan.

7. Utnapishtim determines the height of the water by releasing birds (dove, swallow, raven).

8. After the flood, Utnapishtim brings a sacrifice to the gods.

9. The gods smell the sweet savor.

10. The god Enlil is reconciled with Utnapishtim.

11. Enlil blesses Utnapishtim and his wife and makes them equal to the gods.

When comparing the Gilgamesh epic with the Genesis account, it is noted that there is little room for childish speculation (133). For instance, ludicrous "ancient astronaut" attempts (58) fail (133:56-60). Differences as well as similarities become important.

Being closest to the Hebrew influence, the Babylonian and Sumerian flood traditions retain details closest to the Hebrew tradition. The degree that details change or become forgotten correlates directly with the distance a flood legend exists from this influence.

Differences

Although the remarkable similarity of flood traditions is often stressed, no less remarkable are their differences. LaHaye and Morris believe that, "even their differences appear in a predictable pattern, predictable, that is, if it is assumed that all are descendants of Noah and migrated from the Ararat area after the flood (87:237)."

The farther a flood tradition is located from the Ararat region, the greater the number of mystical and illogical incidences creep into the story; destroying clarity of thought, and making it impossible to review in a literal sense. Other flood legends, handed down and assimilated through the generations of descendants since Ararat, will now be considered. Differences as well as similarities interlining the non-Biblical and Biblical flood traditions must be kept in mind.

Considering the Other Flood Legends

The following stories have a certain quality about them reminiscent of the same event, though intruding centuries have caused details to become clouded. Only the bottom-line facts remain in native tradition. Here is a sampling of flood traditions to be considered.

Greek and Latin mythology is not only well recorded, it is also well known.

> The Latin poet Ovid writes about one flood tradition, originally recorded by Apollodores of Athens (102:104-105). In this version, Pandora's box is not enough to exterminate the human race, so Zeus decides to flood the earth. Prometheus warns his son Deucalion, king of Thessaly, and advises him to build a large chest into which he will climb with his wife, Pyrrha. The chest floats nine days and nights. On the tenth day, the Deluge ends, and the chest lands on Mount Parnassus; Deucalion gets out and offers a sacrifice to Zeus Phyxios, protector of fugitives. Zeus promises to grant his first wish. Since the human race was annihilated by the Deluge, Deucalion asks Zeus to give it life again. Zeus tells Deucalion and Pyrrha to pick up stones and throw

> them back over their shoulders. The stones that Deucalion throws become men; those that Pyrrha throws become women.

It has been suggested that a Hittite link may have existed between this version and the Babylonian account.

> An Egyptian story of a deluge (29:84) is preserved in the so-called Book of the Dead. The god Atum announces his intention of flooding wicked mankind with the water of the primeval ocean. The flood starts at Nenensu, or Herakleopolis, in Upper Egypt, and submerges the entire country. The only survivors are certain persons who have been rescued in "the boat of millions of years," i.e., the barque of the sun-god, with Temu himself. Temu seems to have sailed to the Island of Flame--but the text is mutilated.

Older Egyptian flood traditions describe a universal destruction by water. But of particular interest is what has been called by Translator Sir Gaston Maspero as, "a dry deluge story"; a newer tradition (104:177-178) inscribed on the walls of a chamber in the tomb of Seti I, and called "The Legend of the Destruction of Mankind."

> The long story has all the general features common to flood traditions; all except the destruction by water. Maspero has said that in the Egyptian religion the water-god, the god of the Nile, was a beneficient god, and as the Egyptians did not wish to have him connected with a destruction of mankind, they changed the tradition (104:177-178).

That flood traditions are uncommon in Africa is likely due to Egyptian influence. But it's significant that the Flood is included in different African traditions. "Livingstone found in Africa a highly civilized tribe called the Bermagai, which possessed a tradition of the Deluge (104:177)."

> The natives of Sudan call Lake Chad (Caudie) in Bornu (Barnu) Bahar el Nuh, i.e., the lake of Noah, believing that a flood submerging the whole earth had its origin in this lake, and also, the Hottentots call the progenitors of their race Noh and Hingnoh (75:53) (110:35).

Likewise, there are four Muslim flood accounts (91:325-327). The Koran records that the Flood boiled over (like "hot springs") from the oven belonging to an old woman called Zula-Cupha (Koran c:xi). Therefore, it would be a mistake to say that no flood traditions exist in Africa. But omision and change of details must be considered, especially in flood traditions further away from the cradles of civilization.

For instance,

> The Menangkaben natives of Sumatra (104:190) have a tradition that Noah landed on their Mount Marapi, and to this day they make their thatched houses in the shape of an ark or galley with a peaked prow at each end and set on stilts.
>
> According to the natives of the Leeward Islands (73:11), soon after the peopling of the world, the god Ruhatu was reposing in his coralline groves in the depths of the ocean. The waters about this area were sacred and fishing was tabu; but a certain fisherman, disregarding the fact, lowered his line until the hook got caught in the hair of the sleeping god. When the fisherman attempted to draw it up again, he only succeeded in arousing the sleeping god. Ruhatu appeared at the surface and upbraided him for his impiety, declaring that all mankind was equally impious and that therefore the whole land would be destroyed. The frightened fisherman implored forgiveness and, moved by his prayer, Ruhatu told him to go at once with his wife and family to safe refuge on a small island called Toamarama. The man obeyed and also took, it is generally agreed, a friend, a dog, a pig, and two fowl as well. They no sooner reached the place of refuge than the waters began to rise, eventually covering the highest mountains, and all people perished. When the waters subsided, the fisherman and his family took up their abode on the mainland and became the progenitors of the world's present inhabitants.

The Filipino legend says that "only a few privileged people escaped by climbing high mountains (102:108). When the gods believed that the punishment was sufficient, they permitted the water to run away through a hole in the ground." It is true of almost all Pacific legends that rain did not fall, but that the water only got higher.

The Kolushes of Alaska have the following tradition:

> Formerly the father of the Indian tribes lived toward the rising sun. Having been warned in a dream that a deluge would desolate the earth, he built a raft, on which he saved himself and his family and all the animals. He floated for several months on the water. The animals, who could then talk, complained and murmurred against him. A new earth at length appeared. The animals lost the gift of speech as punishment for their complaining (110:35).

A splendid assortment of flood traditions remains in many of the legends of the American Indians. "A remarkably clear and significant tradition is preserved in ceremony by the Mandan Indians, as reported by the early English traveler, George Catlin (104:184-185)." Nelson relates:

> In the center of the village was an open space, or public square, 150 feet in diameter and circular in form, which was used for all public games and festivals, shows and exhibitions. The lodges around this open space fronted in, with their doors toward the center; and in the middle of this stood an object of great religious veneration, on account of the importance it had in connection with the annual religious ceremonies. This object was in the form of a large hogshead, some eight or ten feet high, made of planks and hoops, containing within it some of their choicest mysteries and medicines. They called it the "Big Canoe."
>
> On the day set apart for the commencement of the ceremonies, a solitary figure is seen approaching the village. With all eyes upon him, he makes his appearance proceeding toward the center of the village where all chiefs and braves received him in a cordial manner

> by shaking hands, recognizing him as an old acquaintance named Nu-Mohk-Muck-A-Nah (the first or only man). The body of this strange, chiefly naked personage was painted with white clay, so as to resemble at a distance a white man. He entered the medicine lodge, and went through certain mysterious ceremonies.
>
> During the whole of this day, Nu-Mohk-Muck-A-Nah stopped at each man's lodge, crying out until the owner of the lodge came out and asked who it was, and what was the matter. To which he replied by narrating the sad catastrophe which had happened on the earth's surface by the overflowing of the waters, saying that "he was the only person saved from the universal calamity; that he landed his big canoe on a high mountain to the west, where he now resides; that he has come to open the medicine lodge, which must needs receive a present of an edged tool from the owner of each wigwam, that it may be sacrificed to the water; for," he says, "if this is not done there will be another flood, and no one will be saved, as it was with such tools that the big canoe was made."
>
> Having visited every lodge in the village during the day, and having received from each such a present as a hatchet, a knife, etc., he placed them in the medicine lodge; and, on the last day of the ceremony, they were thrown into a deep place in the river--"sacrificed to the spirit of the waters."
>
> Among the sacred articles kept in the medicine lodge, Catlin relates, are four sacks of water in the form of a tortoise lying on its back. "These four tortoises, they told me," Catlin says, "contained the waters from the four quarters of the world--that those waters had been contained therein ever since the settling down of the waters." The big canoe in the center of the open space, he was informed, was a representation of the ark (104:184-185).

Nearly wiped out by smallpox, the Mandans finally went to live with their Sioux relatives in 1837. Today, the Dakota Sioux tribes in general, do not seem to recall a flood tradition. The Mandan tradition was either misunderstood, unaccepted, or forgotten in the final transition, so evidently, the Catlin account appears to be the last Siouan flood tradition. But many other flood accounts remain in North America as well as other parts of the New World.

"For the pre-columbian Mexicans, Noah might be represented by Imos, a patriarch who built a large skiff to escape with his family from the Deluge (102:109)."

The Indians about Panama "had some notion of Noah's flood, and said that when it happened one man escaped in a canoe with his wife and children, from whom all mankind afterwards proceeded and peopled the world (29:121)." Likewise, the Indians of Nicaragua believed that "since its creation the world had been destroyed by a deluge, and that after its destruction the gods had created men and animals and all things afresh (29:121)."

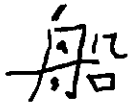
> The natives of Tierra del Fuego, in the extreme south of South America, tell a fantastic and obscure story of a great flood (29:128). They say that the sun was sunk in the sea, that the waters rose tumultuously, and that all the earth was submerged except a single very high mountain, on which a few people found refuge.

The preceding legends make up only a few of the over two hundred flood traditions to be considered. But for some critics, only seeing is believing. Notably, some flood traditions become even more explicit.

Those Remarkable Marks of Ancient Tradition

Important events are often marked in stamps, money, calendars, and other commemorative pieces. If such an important event as a worldwide flood ever really occurred, the finding of certain marks of commemoration would be expected; especially in traditions of written form. Remarkably, a few such symbolic marks have survived the centuries.

In reference to Pape, Custance points out that "one Chinese sign for "boat" (a sign about two thousand years old), is composed of three elements (73:30)." This lettered character follows.

One Chinese sign for "boat": 

In this case:

the root or radical,  means "boat,"

the second element,  means "eight,"

and the third element,  means "mouth."

Figure 13

Chinese Script (73:30)

Interestingly, as other cultures count heads, the Chinese count mouths.

> The Chinese ideograph for "boat," therefore has come to be closely associated with the idea of eight people, a fact which seems most reasonably accounted for by assuming that the tradition of eight survivors of the Flood already existed when the sign language was developing (73:30).

The ancient Phoenicians also seem to recall the Flood in their art. According to Filby, "bronze models of ships of Phoenician production, showing various kinds of animals standing in them, going back to the seventh century B.C. have been found in Italy and in Sicily (75:45-46)." The Phoenicians also believed that a man and his seven sons built the first ship. Is this just coincidence?

Other marks were carved in stone. For instance, the famous Aztec calendar stone, originally carved into a wall of the ancient temple of Tenochtitlan (now Mexico City), contained the following design.

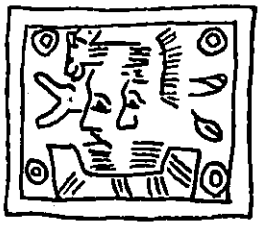


Figure 14

Design Contained on Aztec Calendar Stone (108:187)

"The design, scholars think, represents an ark with Noah and his wife and animals in it (104:187)."

Rehwinkel reports that "in the ancient town of Apamea in Phrygia, there was a pillar on which was carved an ark, which, according to tradition, had come to rest on that very spot (110:36)." According to Nelson:

> The people in the neighboring Phrygian town, Iconium, had the same pretensions as to where the ark landed. The authorities of Apamea, in the third and second centuries before Christ, had coins made, some of which are still preserved (see Figure 15) on the one side of which was represented an ark open and in it the patriarch saved from the Deluge and welcoming a bird; on the other side the pair leaving the ark to take possession of the earth (104:176).

Note that on the coin in Figure 15 not only does a bird with an olive branch fly above the ark, but that the Greek name

Figure 15

Coin Found in the Ruins of Apamea
in Modern Turkey (108:176)

"Noe" also appears on the ark itself. It is reported that several copies of this coin (or medal) have been found (75:45).

Certainly, the evidence from tradition is staggering if not overwhelming. But the most overwhelming piece of evidence supporting flood geology models may soon be fully uncovered.

The Possible Discovery of An Ark on Ararat

From written antiquity, historians have recorded the existence of a barge-like boat (called an ark) preserved in the heights of Mount Ararat in Kurdistan of northeastern Turkey.

The Bible records that Noah's ark (with the cargo capacity of approximately 522 standard railroad boxcars--enough to hold plenty of animals!) eventually came to rest

"upon the mountains of Ararat (Gen. 8:4)." Strictly speaking, there are two mountains rising out of the Armenian plain bearing that name: Lesser Ararat--elevation 12,800 ft., and Greater Ararat--elevation 16,946 ft. Segraves points out that: "The Moslem Koran of Mohammed states that the ark came to rest on Al Judi (Sur xi:40); a particular peak on Greater Ararat, allowing for the Bible and the Koran to both refer to the same mountain (125:15)." According to LaHaye and Morris, that the ark of Noah is really a fact of history is "supported by the Bible, Jesus Christ, the apostles, universal flood stories, ancient flood inscriptions, and geological evidence that throughout the earth there was indeed a worldwide flood (87:261)." Morris adds that, "ancient historians such as Josephus, of the Jews, and Berosus, of the Babylonians, mention in their writings that the Ark was still in existence at the time of their writing (100:112)." Likewise, Marco Polo, among other medieval historians and travelers, mentioned the existence of the ark (102:2).

In reference to the ark, Meyer reports that, "in the last 120 years nearly 200 individuals claim to have seen it (90:74)." The details of these sightings have been documented (87) (91) (102:1-9), and even produced in movies (87:219-220) (101). But there is other circumstantial evidence as well. An ancient altar (87:168), a carved head on a mountain peak (121:102), a tombstone with eight Sumerian crosses on it (100:87), and satellite photographs of ark-like

objects (72) (87:202, 204) (91:192-193, 350-356) seem to point to the existence of the ark. Pieces of hand-hewn hardwood (found in a region where the nearest tree is 150 miles away, and the wood is carefully pitched with a bituminous substance) have been retrieved by Bryce in 1876 (87: 50-55), Knight in 1936 (121:39), Navarra in 1955 (102), and others in 1969 (87:158) high off the northern slopes of Greater Ararat. Such evidence raises questions that cannot seem to be answered without the ark. But does this data prove the existence of Noah's ark?

No. Not yet.

The proven existence of the ark remains hidden under the guidelines of scientific method of inquiry, because the observations made thus far are not repeatable, and the evidence is indirect and not testable. Morris concludes that "the fact remains that the Ark has not yet been rediscovered, and the search must go on (101:iv)." Due to the sensationalism of the news media (91:355-356), care must be taken in the consideration of each new piece of evidence as it is discovered. Otherwise, objectivity will be lost, and only negative publicity produced. Blunders by certain exploration groups (87:190) (91:294-297) (100), and a movie producer (101:ii-iii) have made it difficult for other research groups to enter the Ararat zone. Morris admits that "the search for Noah's Ark is and has been at a virtual standstill for the last several years (173:28)." In view of the

present unstableness of the political condition in Turkey, especially along the Russo-Turkish and Iranian-Turkish borders, only proper Turkish authorities should be approached if a serious investigation is to be undertaken again. Montgomery warns that "if the Ark is ever to be found, it will require the consistent, long-term planning of a Cape Kennedy operation, not the perspective of a Boy Scout outing (91: 297)."

The implications of finding an ark on Ararat are tremendous. Obviously, big barges do not easily run aground in the tops of tall mountains! Such a discovery would be the most important archeological (or arkeological) find in history.

Chapter 3

SUMMARY

The purpose of this study was to gather materials and information from selected sources that present a scientific approach to origins: including, (1) public opinion as to how the subject of origins should be taught in public schools, (2) implementation of a two-model approach to origins in the public schools, and (3) the importance of catastrophism and the flood model, as evidenced in worldwide tradition. The grasping of a satisfying worldview in the interest of true mental health makes this study vitally important, since it favors the limitations of real scientific understanding over the seemingly unlimited ways that humanity undermines itself. It was the researcher's motive that the gathered materials and information be used to promote a popular, open-minded, legal, and scientific approach to the subject of origins in all disciplines of society; especially in education where evolutionary dogmatism now permeates most public school materials used.

The review of related literature reveals that consideration of origins is beyond the limitations of scientific method of inquiry, and therefore may only be deliberated in terms of models that compare with observable data. Basically, all models of earth history are variations of only

two; the evolution model, and the creation model. Both models use the same observable data. But creation can never be compromised with evolution; nor is either model more scientific or less religious than the other. However, a comparative examination of origins is not religion, and becomes vital to science since it answers the question of first cause.

Materials are now ready for easy implementation of the evolution-creation approach to origins in public schools. That this two-model approach is not yet, for the most part, installed in public education is not because this method is illegal, unpopular, or unbeneficial. On the contrary, certain legal provisions prohibit the exclusive (or even, favorable) teaching of one model of origins (i.e., evolution) to the detriment of the other. Public opinion polls repeatedly disclose that most parents and adults in general (84 percent) would like creation presented as some form of alternative to evolution in public schools. And there are several other pedagogical advantages to be gained (by both, students and teachers) from teaching a two-model approach to origins that cannot be gained from a one-model approach.

The related literature also recalls that typical pre-Darwinian scholars based all knowledge on the concept of a created world destroyed by water. This concept was displaced, not by new scientific evidence that refuted it, but by revival of ancient evolutionary philosophies that

simply denied it. Closer examination of the available evidence leaves any evolutionary interpretation of the data with numerous unanswered objections; especially when dealing with sudden catastrophic changes apparent in the historical record. A complete reinterpretation of the facts corresponding to the universal flood concept is needed. At least part of this reinterpretation of the facts may be supplied by the canopy model; probably the most reasonable view of what the world was like before the Flood. But the most remarkable of all evidences is found in world tradition.

The related literature lists more than two hundred flood traditions. Each has varying degrees of similarity, but most agree that, (1) the destruction by water was global, (2) the means of safety was an ark or comparable vessel, and (3) the human seed was preserved. Missionary influence is shown to be negligible, because it would rather appear that each tradition grew from an ancient original.

Granted that one of two ancient flood traditions (i.e., either the Sumero-Babylonian account or the Hebrew narrative) can be judged as the best derivation from this ancient original. Less accomplished writings are then dismissed as adroit counterfeits. At least in terms of the Genesis history, differences are predictable (i.e., if it be granted that all are descended from Noah and journeyed from the Ararat-Babel region after the Flood). Bottom-line details, having a certain reminiscence of the same event,

still remain in the commemoration and retelling of all flood traditions. Certainly, the evidence is staggering. But the most overwhelming piece of evidence may soon be found: the ark of Noah! Though close to two hundred individuals claim to have seen the ark in recent times, the ark cannot be produced on demand, and so has not yet really been rediscovered. Care is recommended in exploration for the ark since such a discovery would be the most important archeological find in history. Such a find would leave all evolution models of transformism in ruins, affirming the testimony of the special model of creation, the Genesis model.

Chapter 4

CONCLUSIONS

In the preceding pages, many issues involving life and its origin have been discussed, and most (if not all) of the proofs of evolution are included. To the reader, these proofs probably are not as impressive as originally expected. But then this may be due to the fact that the overwhelming majority of the highly educated are evolutionists. Before it is suspected that the foregoing evolutionary proofs have not been fairly presented, consider why it may be that most of the highly educated accept evolution in answer to life's riddle of the universe.

It is not that these scientists and educators lack evidence or sincerity, but only that they have different starting points.

Starting from the point of complex scientific information and its current interpretation in the evolutionary/uniformitarian frame of reference leads to evolution-based conclusions that are primarily self-contradictory. For instance, can an evolutionary system absorb the fact that this planet's magnetic field was inaugurated less than 20,000 years ago owing to its present rate of deterioration? Or the existence of anomalous pleochroic halos? Or the discovery of variable decay constants in certain radioactive

nuclides? Or the presence of mammoth bones and carcasses in extreme northern latitudes? Or the occurrence of human footprints in close fossil proximity to dinosaur footprints and trilobites? Or the tradition of a major flood in almost every major culture? If geologists, scientists, and other educators indoctrinated in the philosophy of uniformitarianism ignore such discoveries, are not legitimate questions raised concerning their sense of credibility and objectivity?

Strictly from the prospect of observation and experience, using the creation model as an alternative starting point reaches no conclusions either. Though empirical methods are often used to verify evidences pertaining to origins, conclusions cannot be formed. Thus, evidences supporting a creationist/catastrophic viewpoint must, at best, remain circumstantial; just as must evidences supporting an evolutionist/uniformitarian viewpoint.

Still, since Darwin revitalized the origin of life question in the last century, evolution has been largely embraced as the solution. Many forms of evolution are now accepted by almost every segment of the learned society, and children are taught evolutionary doctrine from kindergarten on up, not suspecting any of the philosophical undertones involved.

For the most part, an evolutionary approach to origins would be no problem if it was limited only to

scientific evidence from unbiased observers. But just as the creation model is often labeled "religious," so the evolution model is often termed "scientific." Taken by themselves, both models of earth history exhibit unscientific religious natures. However, a comparative approach to both evolution and creation is not religion. And science (to have any real substance in its cause-and-effect meanings) must not avoid the question of first cause. Dealing with this question takes an open-minded approach to not just one, but all models of earth history (i.e., that for most practical purposes, are variations of only two--the evolution and creation models).

The present public education system lacks an open-minded approach to models of earth history; usually favoring the evolution model to the exclusion of the creation model. The foregoing research sought to alleviate this problem. And on the basis of the completed research, the following conclusions are made:

1. The world of the present is notably changed since the world of the past. The evidence from science and tradition is at least equally applicable to the creation model, as well as the evolution model.

2. To exclusively (or even favorably) teach one model of origins in public schools to the detriment of another is religious discrimination, and a possible violation of the United States Constitution and ensuing Civil Rights Act.

3. Approximately 60 percent of parents and citizens in general prefer that a two-model (evolution/creation) approach to origins be taught in public schools. And 84 percent overwhelmingly desire that the creation model not be left out of public education. In other words, public opinion demands that some form of creation be taught in public schools, and with this, local and regional telephone surveys agree.

4. A reasonably large quantity of textbooks, films, filmstrips, slides, cassettes, transparencies, and other classroom materials are now available offering an objective, scientific approach to origins without religious or denominational translation. A catalogue of current publications in this area may be obtained by writing the largest publisher of material in the scientific creationist field:

Creation-Life Publishers
P.O. Box 15666
San Diego, CA 92115

or

Call: (714) 449-9420

Another useful catalogue of recent creationist materials can also be obtained by writing the:

Bible-Science Association, Inc.
Box 1016
Caldwell, Idaho 83605

The aims and publications of the Bible-Science Association parallel those of the Creation Research Society, except that the former is probably more theological and less scientific in its materials. Obviously, materials are now available.

Chapter 5

RECOMMENDATIONS

Recommendations Specific to the Foregoing Completed Research

As a result of the preceding conclusions, the following recommendations are made:

1. Guidelines should be established in each state for the implementation of a two-model (evolution/creation) approach to the origin of life.

2. Schools should inform parents, pastors, and teachers about the different models of origins, including recent findings in the scientific and archeological fields.

3. Schools should identify and act upon public opinion in individual public school districts as to how the subject of origins should be taught in those schools.

4. Schools should identify and enforce a possible violation of the United States Constitution and ensuing Civil Rights Act, presently causing religious discrimination.

5. Schools should sponsor debates (open forum or otherwise) to resolve in the public mind whether creation should be taught as an alternative to evolution in public schools. Traditional or cross-examination formats could be practiced, placing creationists against evolutionists and/or

anti-creationist theologians. And if opposing sides agree prior to debate, filmstrips or slide presentations could be implemented to help illustrate contentions.

6. Schools should identify books, filmstrips, slides, cassettes, transparencies, and other classroom materials available to teach alternative models of the origin of life, and include them in their curriculum.

7. The instruction booklet, Introducing Scientific Creationism Into the Public Schools, by Henry M. Morris (San Diego: Creation-Life Publishers, 1975), should be used in the inception of a two-model approach to origins in public schools. This booklet deals primarily with the scientific validity of creation, the religious nature of evolution, and ways school administrators, teachers, pastors, scientists, students, parents, and other people should deal with problems encountered when setting up a two-model approach to origins.

8. The following books should be used in public schools to best present creation and evolution in a two-model approach to origins:

a. Origins: Two Models, by Richard B. Bliss (San Diego: Creation-Life Publishers, 1976; teacher's guide, overhead transparencies). A unit planned for three weeks presenting creation and evolution in a two-model approach to the origin of life. Large illustrations make this module useful in either junior or senior high school.

b. The Creation Explanation, co-authored by Robert E. Kofahl, and Kelly L. Segraves (Wheaton, IL: Shaw, 1975). This high school and college level text compares evolution with creation, particularly from the point of intelligent design found in nature.

c. Science and Creation, a Handbook for Teachers, by Henry M. Morris, et al. (San Diego: Creation-Science Research Center, 1971; eight separate teacher's guides, eight separate student texts). This series is still the best material available that teaches both creation and evolution to the elementary grades from a scientific viewpoint.

d. The Scientific Case for Creation, by Henry M. Morris (San Diego: Creation-Life Publishers, 1977). This book primarily shows the evidence and logic from science supporting the creation model of origins. Models of origins are defined.

e. Scientific Creationism, by Henry M. Morris (San Diego: Creation-Life Publishers, 1974; public school edition). Written under the guidance of a large advisory staff, this text is easily understood at either high school or college levels. This text is the most documented scientific exposition dealing with origins, and remains highly recommended.

f. Streams of Civilization, 2 vols., co-authored by Albert Hyma and Mary Stanton (San Diego: Creation-Life Publishers, 1978; teacher's guide). The origin of life and

the universe are investigated in this all-inclusive, scientific approach to world history. Written for junior and senior high schools, these texts probably present the most unbiased value-oriented approach ever given in a history course.

g. Biology: A Search for Order in Complexity, 2nd ed., co-authored by Harold S. Slusher and John N. Moore (San Diego: Creation-Life Publishers, 1974; three separate student manuals, three separate teacher manuals, teacher's guide). Both evolution and special creation are presented as viable alternatives to life's origins in this high school biology text. Designed to be taught in two semesters, this text may be adapted for junior college or junior high school.

h. "A Unit on Biological Origins for the Secular Classroom," by David Paul Licata. Creation Research Society Quarterly, XVI, 1 (June, 1979), pp. 60-63. A data table comparing creation and evolution makes up the core of this unit for public school biology.

i. In the Beginning: A Study of Creation versus Evolution for Young People, by Rita Rhodes Ward (Grand Rapids, MI: Baker, 1967). Ideas for questions, exercises, and experiments are supplemented by this book, especially targeted for elementary grade levels.

9. The following movies should be used on a rental basis to best present creation and evolution in a two-model approach to origins for public schools:

a. Creation vs. Evolution (Caldwell, ID: Bible-Science Association), 40 min., color, jr. high-adult. One of the question and answer moderators in this discussion with young people is Dr. John N. Moore, professor of natural science, Michigan State University.

b. Footprints in Stone (Caldwell, ID: Bible-Science Association), 45 min., jr. high-adult. A documentary film enacting the search and subsequent discovery of fossilized dinosaur tracks alongside human fossil footprints in the Paluxy River Basin near Glen Rose, Texas.

10. The sound and color slide presentation, Creation and Evolution: A Comparison of Two Scientific Models (San Diego: Creation-Life Publishers), should be used to best present creation and evolution in a two-model approach to origins for public schools. This presentation is also available on filmstrip.

11. The following sound and color filmstrip presentations should be used in public schools to best present creation and evolution in a two-model approach to origins:

a. Design in Nature--Probable or Improbable (San Diego: Creation-Life Publishers), 25 min., 74 frames, jr. high-adult.

b. Dinosaurs--4000 Years Ago (Caldwell, ID: Bible-Science Association), jr. high-adult.

c. Footprints on the Sands of Time (Caldwell, ID: Bible-Science Association), jr. high-adult.

d. Fossils, Strata, and Evolution (San Diego: Creation-Life Publishers), 26 min., 126 frames, grades 7-9.

e. The Mystery of Early Man, by Miriam Mitchem (San Diego: Creation-Life Publishers), 22 min., 54 frames, jr. high-adult.

f. Search for Noah's Ark, by Kelly L. Segraves (Caldwell, ID: Bible-Science Association), jr. high-adult.

g. Winged Royalty: Life Cycle of the Monarch Butterfly, by Miriam Mitchem (San Diego: Creation-Life Publishers), 22 min., 142 frames, jr. high-adult.

h. Outdoor Pictures Productions (distributed by the Bible-Science Association), 35-75 frames except where noted, elementary-sr. high. These filmstrips are designed primarily as teaching aids presenting factual data:

(1) Ancient Man of Olduvai
(2) Birds of Galapagos
(3) Carnivorous Plants
(4) Continental Glaciation
(5) Darwin's Finches
(6) Dinosaurs
(7) Dinosaurs--Reptiles from the Past
(8) Fossils
(9) Ecology and Plants of Galapagos
(10) Ecology of a Lake
(11) Ecology of a Sand Dune (30 frames)
(12) Ecology of Hawaii

(13) Galapagos--Enchanted Islands

(14) Galapagos--Showcase for Evolution (80 frames)

(15) Let's Learn the Amphibians

(16) Let's Learn the Birds

(17) Let's Learn the Insects

(18) Let's Learn the Mammals

(19) Let's Learn the Reptiles

(20) Let's Learn the Trees

(21) Let's Learn the Weeds

(22) Let's Learn the Wild Flowers

(23) Mountain Glaciation

(24) Reptiles of Galapagos

(25) Surtsey is Born

(26) Tortoises of Galapagos

(27) Volcanoes--Past and Present

13. The following cassettes should be used in public schools to best present creation and evolution in a two-model approach to origins:

a. Age of the Earth by Heat Loss, by Harold S. Slusher (Caldwell, ID: Bible-Science Association, 1976)

b. Creation, Evolution and the Fossil Record, by Duane T. Gish (San Diego: Creation-Life Publishers)

c. Differences in Education in the Two Models, by Donald E. Chittick (Caldwell, ID: Bible-Science Association, 1976)

d. Dinosaurs and Men, by John C. Whitcomb, Jr. (Winona Lake, Indiana: Grace Seminary, 1979), 3 tapes.

e. Dinosaurs and the Deluge, by Henry M. Morris (San Diego: Creation-Life Publishers)

f. Evolution and Science, by Henry M. Morris (San Diego: Creation-Life Publishers)

g. Evolution Mechanisms--Do They Really Work? by Duane T. Gish (San Diego: Creation-Life Publishers)

h. Evolution vs. Creation Model, by John Cunningham (Caldwell, ID: Bible-Science Association, 1976)

i. Evolution vs. Entropy, by Henry M. Morris (San Diego: Creation-Life Publishers)

j. The Flood and the Genesis Record, by Henry M. Morris (San Diego: Creation-Life Publishers)

k. Flood Geology vs. Evolution, by Henry M. Morris (San Diego: Creation-Life Publishers)

l. Fossil Man, by Marvin Lubenow (Caldwell, ID: Bible-Science Association, 1976)

m. Has the Ark Been Found? by John D. Morris (San Diego: Creation-Life Publishers)

n. Independent Verification of Decay of Earth's Magnetic Field, by Thomas G. Barnes (Caldwell, ID: Bible-Science Association, 1976)

o. Latest Research and the Origin of Man, by Duane T. Gish (San Diego: Creation-Life Publishers)

p. Modern Science and the Genesis Record, by Henry M. Morris (San Diego: Creation-Life Publishers)

q. Origin of Life Experiments, by Duane T. Gish (Caldwell, ID: Bible-Science Association, 1976)

r. Strengths and Weaknesses in Einstein's Relativity, by Thomas G. Barnes (Caldwell, ID: Bible-Science Association, 1976)

s. Thermodynamics and Inconsistencies of Evolution, by Thomas G. Barnes (Caldwell, ID: Bible-Science Association, 1970)

t. The Two-Model Approach to Education, by Richard B. Bliss (Caldwell, ID: Bible-Science Association, 1976)

13. Concerned citizens should be encouraged by school districts to raise funds toward the purchase of books and other classroom materials that present creation and evolution in a two-model approach to origins. Other such endeavors could also fill the need for creationist materials in classrooms or libraries.

The preceding selection of recommended classroom materials may, at first, seem particularly biased toward the creationist point of view. However, remember that evolutionists do not normally publish texts presenting creation and evolution in a two-model approach to origins.

Recall that almost all educational materials used today are generally evolutionary biased. As long as evolution remains the accepted mode to origins in most academic

circles, evolutionists really gain nothing by introducing alternative models into their material. Consequently, this author cannot recommend any evolutionary materials dealing with origins from a better than one-model (evolution) approach. But it must be added; an attempt was made in the creationist materials here presented to stay as nonreligious and objective as possible.

Due to the ever-increasing influx of new knowledge from research, improving and revising curriculums should be of paramount importance to all schools. Why? Because it simply makes no sense to blindly teach unproven, outmoded knowledge without, at least, weighing the new scientific alternatives available. In this case, students of earth history deserve not just some, but all of the information now pertaining to universal origins--including the data from the most recent research.

Suggestions for Further Topics of Research

Sponsored Research

The Institute for Creation Research, 2716 Madison Ave., San Diego, CA 92116, is interested in sponsoring research within the aims of its organization. Any inquiries or proposals can be addressed to:

Dr. Emmett L. Williams, Jr.
Chairman of the Research Committee
Bob Jones University
Greenville, South Carolina 29614

Some investigations currently active include (160:140) (176:105) (77:125):

--research on the biochemical taxonomy of sideneck turtles found in Africa, South America, and Austro-asia, suggesting that possibly ocean currents were important in distributing the present groups (Frair),

--research on chamise (grease wood), showing that after a fire, it regrows primarily from seedlings, contrary to what is often stated (Howe),

--studies of the formation of rings in the bristlecone pine (Lammerts),

--detailed experiments involving layering of fresh water on top of heavier salt water in a physical model demonstrating how some fresh-water as well as marine organisms could have survived the Flood (Smith),

--continuing research into the viability, or otherwise, of mutant plants (Tinkle),

--two projects on the precipitation of salts by the mixing of brines, and related effects (Wilcox and Herdklotz),

--an investigation of some of the processes which may have been involved in the formation of caves and dripstone (Williams), and

--a study of effects of the Earth's magnetic field on the concentration of C-14 as a function of geographic coordinates, height above the earth, and time.

Other research items have also been approved by the Institute, but results are not yet available.

Educational Research

Bliss (65-66) compared students in Racine, Wisconsin, studying from a creation-evolution approach to the origin of life and those studying evolution only. A similar study could be done if permission can be acquired to allow

students to learn origins from a creation-evolution approach. Instruction would be inquiry based, and students would be encouraged to collect information supporting both the evolution and creation viewpoints. A second class of students, a class taught evolution only, would serve as a control. Of course, a t value would be required to determine the similarity of the two classes' IQ scores. Available materials (199) could help finish this project in as little as three weeks. The researcher would be required to pre- and post-test both classes on cognitive as well as attitudinal measures. Previous studies have shown that students taught origins from a two-model approach, (1) understand evolution even better than students taught evolution only, (2) develop critical and open-minded thinking habits, and (3) exhibit high motivation, and, therefore, learn more effectively.

Another possible project that would be somewhat easier could be gotten from a random telephone survey similar to the one included in this report. An excellent possible format can be obtained from the ICR Midwest Center, Box 75, Wheaton, IL 60187. Results could be included in ICR's continuing 14-state survey which supplements a national survey.

Still another possible project could come from a critical analysis of textbooks currently being used at all grade levels in all subject areas. Criticism would center

on evolutionary bias evident within the educational materials. Just such an alternate plan paper (115) is on file at Mankato State University, Mankato, Minnesota.

Scientific Research

Physics

Further determination of anomalies in radiohalos similar to Gentry's work (77-80) would be a useful project.

Another valuable project would be to update Barnes' study (210) by measuring the earth's present magnetic field, and comparing this value with previous values (e.g., those of Gauss, Lamb, Barnes, etc.) to see if the earth's magnetic field is still declining exponentially.

And, of course, another project would be to attempt a change of a known radioactive constant. Slusher (214:45) reports that Emery (23) was able to change the radioactive properties of fourteen different nuclides by imposing different temperatures, pressures, electromagnetic fields, and monomolecular layers. Emery's study deserves closer examination. Certainly, any endeavor of changing a known radioactive constant would require sophisticated equipment and strict laboratory controls to be of any value, and should not be undertaken at too elementary a level.

Biology

Besides research into the viability, or otherwise, of mutations, a report could also be written dealing with

the specificity of kinds. Biological topics are virtually endless. Perhaps, a cancer cure might be easier to resolve if mutant cells are treated entirely in a degenerative context.

Chemistry

Gish (212) did a critique of current laboratory experiments and theories attempting to prove life came from non-living chemicals, and a similar analysis could be done on a smaller scale with a supportive experiment.

Geology

A critique of current geological theories could be done. They could be reinterpreted in an overall context of flood geology similar to the theories that were accepted before Lyell. Conceivably, oil might be easier to find with further research along these lines.

Another critique could be done analyzing any new so-called "missing link" discoveries.

Astronomy

Due to the many astronomical models, several projects may be attempted. The most interesting might be an examination of the Steady-State and Big-Bang Cosmogonies such as Slusher wrote (214). This kind of report would again show how the universe could not have come about by naturalistic processes, and consequently, favors a recent origin.

Statistical Research

Mathematics

The probability of life by chance is small (less than 10^{-280}), essentially impossible. A mathematical study similar to that of Morris (205:43-64) would be an easy topic for an alternate plan paper.

Computer Science

An interesting study would be one similar to that of Woods (100:103-107) (217). Woods did a computer study determining the point on the earth's surface closer than any other point to all other land masses. That this point is in the Biblical lands (latitude 39 ^{o}N., and longitude 34 ^{o}E.; near Ankarra, Turkey) infers that those lands were ideally located for staging the related history.

Other Research

Ancient Literature

Most paleontologists agree that dinosaurs became extinct hundreds of thousands of years before man entered the evolutionary scene. But human footprints have been found fossilized with the tracks of dinosaurs (q.v.), and this seems to indicate that man and dinosaurs once lived at the same time. It has been expressed that dragon tales in early literature depict factual human encounters with dinosaurs. Assuming this to be true, it would prove to be an interesting endeavor to find the implications of dragons in

ancient literature. Rouster did such a study based on the English epic Beowulf (179:221-222). But certainly, almost any ancient epic containing dragons could be examined in the same way.

In an effort to make science fiction seem more like science, evolutionary concepts almost always permeate this genre of literature. A critique along these lines will not only prove interesting to sci-fi buffs, but may also change one's attitude toward science fiction in general.

Social Sciences

Factual evidence of man's cultural evolutionary progression has not been discovered (q.v.). In fact, take away the evolutionary assumptions, and history shows just the opposite; that man began in a highly civilized state, and later fell into a state of degeneration according to the Second Law of Thermodynamics. Possible research could approach histories of advanced civilizations or cavemen in this manner.

This handful of suggested topics simply comprises a brief collection of ideas for further research. Other topics may be suggested at another time. But when dealing in the field of universal beginnings, it must be realized that the number of research topics is as boundless as the universe, time, and human imagination. The old adage, "When in doubt, consider the source," may take special meaning in

this case. For when the ultimate source of everything is considered, a person's worldview may very well be formed in the process.*

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*Mr. Robert P. Gardner receives mail at Currie, Minnesota 56123, and invites further comment.

Chapter 6

APPENDICES

Appendix A

Purpose in Living

Is life an accident or does life have meaning? This and other similar questions regarding life's purpose (teleology) are outside the realm of science, but they cannot really be altogether avoided.

Evolution proposes life formed from a naturalistic (particles to people) chain through random variational processes. Creation proposes life created (from nothing) and implemented to fulfill the Creator's plan. Therefore, just as life through evolution has no purpose, by the same basis of facts, life through creation has purpose. Haas writes: "If we believe the whole of creation was an accident, then we are a continuing part of that accident; if it was meant, then we are part of that meaning (83:7)." Sagan (48:52), as well as most evolutionists in general, believe we are products of an almost endless chain of biological accidents. Therefore, due to the acceptance of evolutionary thought in the scientific community, teleology is ignored for the most part. But evading teleological explanations does not make them any less valid if, indeed, the creation model can be considered as a framework for correlating and predicting observed data.

Many outstanding scientists (e.g., Newton, Bacon, and Kepler), rather than trying to ignore purpose by inventing chance evolutionary contrivances, found the importance of purpose in their work by "thinking God's thoughts after Him." Granted, the Creator's purpose may be often difficult to understand. But nonteleological explanations do not solve the riddle of the universe any better. At least, the principle of a Creator presents reasonable cause for the universe; fortuitous matter does not. From the teleological viewpoint then, the creation model is superior. Morris concludes:

> The creationist explanation not only is far more in keeping with the law of causality, the laws of thermodynamics, and the laws of probability, but also gives assurance that there is real meaning and eternal purpose to existence. This conclusion is worth everything in the developing life of a child or young person (206:35).

It is often wondered how young people could possibly become depressed to the point of societal rejection, suicide, crime, or other meaningless existence. Certainly, at least part of the reason must come from the failure to realize a purpose for living. Young people seek a sense of identity. And it is up to parents, church leaders, teachers, and other educators to provide it to them. "If the student is ever really to understand any phenomenon or system, he must appreciate its origin and purpose (94:76)." Such appreciation is essentially fundamental for meaningful and rewarding living.

Appendix B

How The Flood Affected The Longevity of The Biblical Patriarchs

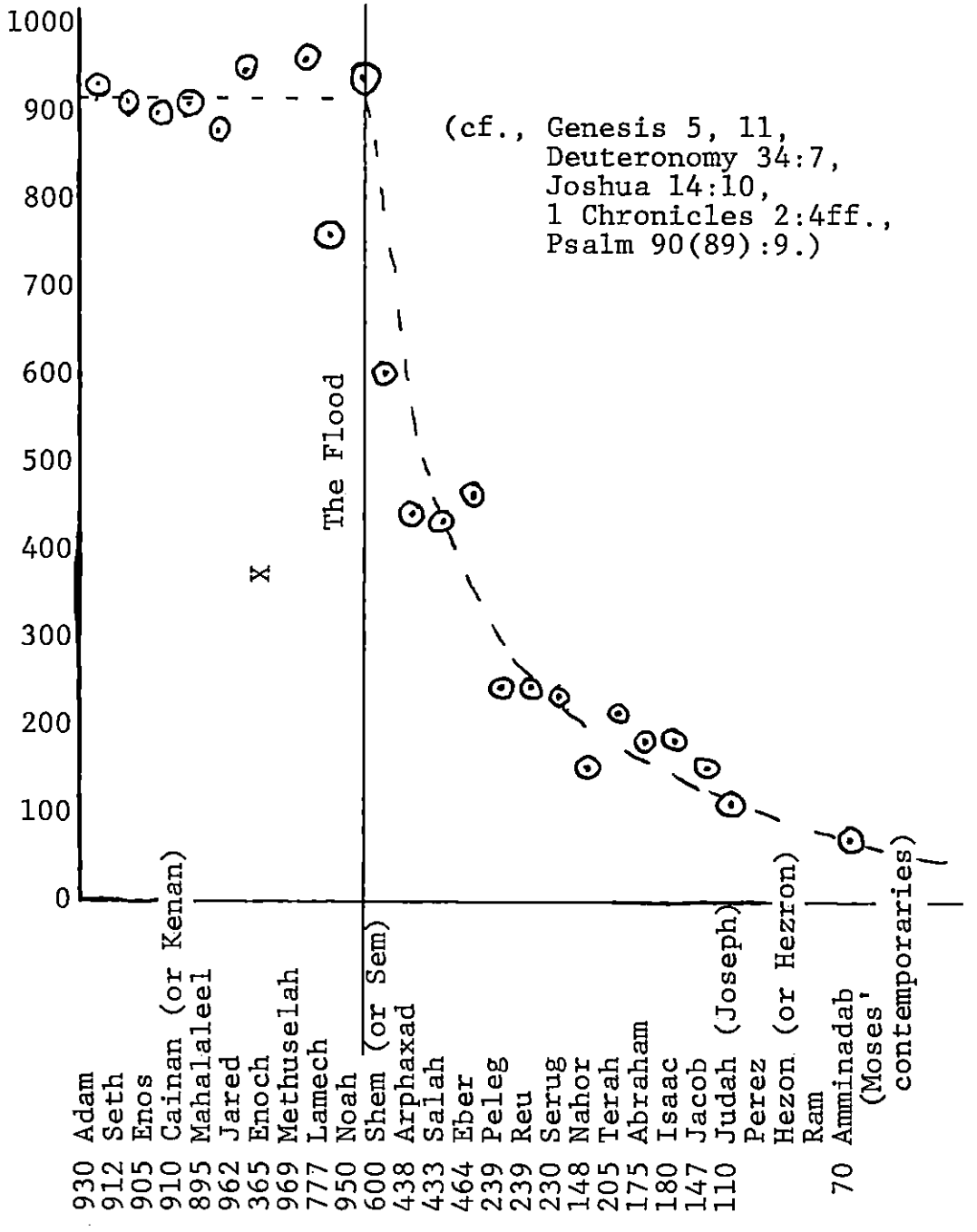

Figure 16

How The Flood Affected The Longevity
of The Biblical Patriarchs

Appendix C

Evidence for the Two Most Ancient Flood Traditions

Because of the spread of culture emanating from the Mesopotamian region, it can be safely concluded that flood legends from the Mesopotamian "cradles of civilization" are the most ancient.

It is the popular belief of many anthropologists that the Sumero-Babylonian flood tradition is the oldest (27-29) (38:20). This belief is attributed to influence from the late nineteenth century German Higher Critical school of thought (75:43).

Based on earlier scripts, the Sumero-Babylonian tradition is found recorded in three general ways:

The oldest accounts by Berossus. Berossus was a third-century B.C. Chaldean priest whose primary works are lost. But remnants of his historical works, including his story of the Flood (75:40-41) (102:99-100) (104:173-174), were preserved and transmitted through Josephus, Eusebius, Syncellus, and Polyhister.

Early fragments of cuneiform tablets. According to Filby, "the story of the Flood seems to have been so well known that it became one of the popular 'books' in the ancient cuneiform libraries, and fragments of a number of slightly differing texts are known (75:41)."

The later Epic of Gilgamesh (in which the story of the Deluge (25:108-113) comprises only part). This remarkably detailed account was taken from the library of Assyrian King Asshurbanipal (669-626 B.C.) during an expedition to the ruins of Nineveh, and were later deciphered by English archeologist George Smith in 1872.

At first glance, the Babylonian tradition does, in fact, seem older than the Hebrew tradition. One noted anthropologist, Sir James G. Frazer, exemplifies this conclusion: "Modern research has proved the supposed divine original in Genesis to be not an original at all, but a comparatively late copy, of a much older Babylonian or rather Sumerian version (27:334)." But who is qualified to say that the Sumero-Babylonian tradition "proved" to be an older account? It is possible that the Smith expeditions of 1872, primarily sponsored by British evolutionists, were motivated to search for archeological artifacts to support their evolutionary wishes. Remember that this was prior to Mendel, and evolution was enjoying a renaissance of acceptance at that time. Yet, Smith's Judgment makes sense if evolutionary assumptions are indeed true. But certainly, if the tablets found in that ancient library are supposedly based on an older tradition, couldn't the story recorded in the book of Genesis also have been handed down from an older tradition?

According to LaHaye and Morris:

> It almost goes without saying that the beautiful story handed down, likely in written form, from Noah through the patriarchal line, finally to be incorporated into the book of Genesis by Moses, stands in a class by itself when compared with other versions for meaningful transmission of information (87:232-233).

It is possible that the obvious changes of point-of-view in Genesis indicate some sort of traditional transmission through the patriarchs. As Custance suggests:

> It probably never occurred to Frazer that at one time the actual logbook which Noah wrote may very well have been preserved intact within the family of Shem. His family therefore could have had the true account from which, when Mesopotamian civilizations several centuries later perfected their own particular scripts, copies were made and liberties were taken which the Hebrew people appear never to have taken with original records (73:24).

Apart from the foregoing suggestions, there are several other reasons why the Genesis account may be considered older than the Babylonian account.

One strong consideration lies in the fact that the Babylonian and Sumerian account uses a number of more sophisticated terms in reference to the vessel of escape. In this version, for instance, the vessel is called a "ship" or "boat," not an ark. The boat was "launched" and "sailed" or was "navigated," whereas the Hebrew narrative records only that "the ark went." Likewise, the Babylonian and Sumerian tradition boasts a "steersman" to navigate the ship. If the cuneiform tablets of the Babylonian flood tradition are indeed older than the papyrus of the Torah (as seems

"proved"), isn't it strange how anachronistic terms also seem to saturate the Babylonian story?

Secondly, that the rainbow does not appear in the Babylonian story of the Deluge or other comparative folklores suggests some interesting possibilities (29:130). Such an omission certainly seems to suggest that such an important detail was either forgotten or misunderstood in the subsequent retelling of the flood story through other interpreters.

Finally, with the exception of the Genesis account, the survivors always ground on a local mountain. Again according to Custance, "that the Hebrews did not relocate the ark on some famous local mountain, such as Mount Zion, is considered a point of real significance (73:17)." In fact, LaHaye and Morris contend that "the reference in the Bible to 'the mountains of Ararat' is in itself important since the Israelites had no personal knowledge of the land to the north of Palestine before Moses' death (87:237)."

It is not within the scope of this report to actually determine whether the Hebrew tradition or the Sumero-Babylonian account is the oldest. Determining the original will be largely left to other research.

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