

# EVOLUTION OR SPECIAL CREATION?

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In the great debate over the origin of this world and its inhabitants, both animal and human, many people overlook the subjective nature of the evidence used on both sides to defend positions taken. In this book the author points out that an examination of nature, either minute or vast, can never reveal, without outside information, just how the world came into existence. His sharp analysis of the problems involved will help clear the atmosphere for all who sincerely wish to arrive at a satisfactory conclusion.

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## KINDS OF EVIDENCE

MANY honest-hearted men and women are asking the question Are we actually blood descendants of amoeba like, fishlike, reptile like, insect like, apelike types, or was our earliest ancestor formed directly from the dust, the son of God? Would Christ die to save noble beasts, or did He give His life to redeem fallen sons and daughters of Adam, children of God?

This question naturally leads to another, How can we know the truth about this extremely important point? Is it a problem like that of the shape of our earth or its motions as an astronomical body? That is, Is it a problem that can be solved by applying the scientific method of investigation, where the worker employs his senses aided by specialized apparatus to secure data, and then searches for the correct answer through mathematical calculations from these data?

If the problem of origin of living forms was of the same nature as that of the shape of our earth, careful scientists would have solved it long before this. But there is a very great difference between the problem of the shape and motions of our earth and that of the origin of plants and animals. For thousands of years the earth has maintained a generally spherical shape. The significance of this situation lies in the fact

that the shape of the earth is a present condition, one that can now be tested and measured and demonstrated scientifically. The same situation exists with regard to the earth's motions as an astronomical body. Because the earth is now round and is now moving, we can study its shape and motions in a scientific manner.

But the problem of origin of living forms is of an entirely different nature. Unlike the shape of the earth and its motions, the manner of appearance upon the earth of basic types of plants and animals is not capable of laboratory investigation. Right now the earth is generally round and is moving, but basic types of plants and animals are not right now appearing either by evolution or special creation. Neither evolution nor special creation of basic types can be demonstrated in the laboratory. This situation has existed as far back as authentic records extend. Therefore, the scientists (and many famous names appear here) who are asserting today that evolution of new basic types is as completely demonstrated as is the shape of our earth are completely wrong. If they would be truthful they would have to say, "We cannot prove in the laboratory that evolution of new basic types has occurred, or is occurring, but we believe such to be the case."

An extremely important point here, which is commonly overlooked by modern scientists, is that of the nature of the evidence that bears upon origins. As the careful, open-minded student of this subject studies the long list of evidences that are set forth to prove that evolution has occurred, he is amazed to learn that not one item on the list is coercive in quality. What do we mean by coercive? Evidence quite generally can be placed in one of two categories. It is either more or less coercive or more or less persuasive.

A good illustration of coercive evidence is found in the proof that our earth is round. We say this evidence is coercive because there is just no other reasonable explanation of such phenomena as the appearance first of the tops of mountains when an observer approaches land from the ocean, or of the fact that if a world traveler will proceed in one direction he eventually will arrive back at the point from which he started. Because such evidence can be interpreted reasonably only by assuming that the earth is round, we say the evidence is coercive, that is, it admits of only one interpretation.

By contrast, every item on the list of evidences for evolution is of a very different sort. As an illustration let us take the order of the fossils in the rock layers. It is a fact that generally, wherever several fossil-bearing layers of sandstone, shale, limestone, and the like are found in contact with one another in an undisturbed vertical relationship, the fossils in the lower layers are of simpler animals (such as brachiopods and trilobites) than those in the higher layers, which may be reptiles or even mammals. Evolutionists proclaim this natural order of the fossils as one of the most powerful evidences that complex animals evolved from simpler animals. They consider it to be quite coercive in quality.

However, the careful student of origins whose mind is not already hopelessly prejudiced in favor of evolution will see clearly that the order of the fossils does not constitute coercive evidence for evolution. It is not coercive, because this arrangement of the fossils could have been produced without evolution entering into the picture whatsoever. A universal Noachian Flood as described in Genesis 6-8 could have produced the same results in a world upon which every kind of animal was living at the same time.

We read in Genesis that the Noachian Flood did not come as one great overwhelming tidal wave, but instead rose gradually over a period of about six weeks before it crested some twenty feet above the highest antediluvian mountain. The waters were very tempestuous as they gradually crept higher and higher. Animals such as brachiopods and trilobites, which could not flee from the boisterous waters, were covered with sedimentary materials first. Those more complex creatures which could retreat to higher ground did so and were finally buried in layers above the trilobites. The powerful animals and those that were agile and moved lightly climbed above the noisy, tumultuous waves as long as high hills and mountains were available, but were eventually overwhelmed and became entombed in the upper layers or were left dead upon the surface when the Flood retreated. It would have been a most unnatural and strange thing if one of the huge brontosaurus had permitted himself to be entombed with the trilobites in some low spot at the first onslaught of the flood waters.

Thus it is that the present order of the fossils is not coercive for evolution or for special creation. For him who has strong faith in evolution the fossil order, simple to complex, can be explained "reasonably and logically" by evolution; but likewise for him who has strong faith in special creation the very same arrangement can be explained "reasonably and logically" by the Flood. The adherent of one doctrine may storm and rave about the strength of his own position and deride the supposed extreme weakness and even absurdity of the position of the other school of thought, but the basic fact remains that the evidence is subjective and capable of explanation from more than one point of view.

Yet some of the greatest scientists of our day declare that organic evolution is now a demonstrated

fact, a fact which they assert is as well established as the shape of our earth. This situation illustrates the power of mental prejudice. Regrettably, most of our great minds have allowed themselves to become obsessed with the idea of evolution and they bend every item of subjective evidence, that is, persuasive evidence, to their way of thinking.

Every item on the list of evidences that is purported to prove evolution is of the same subjective quality as the order of the fossils, and yet the majority of our modern scientists are prompt to brand as “ignorant, dogmatic, and prejudiced” all who suggest that plants and animals arose by special creation.

It is a delight to the searcher for truth to realize that many thousands of scientists and laymen of our day resist the present effort at regimentation that evolutionists are attempting, and have the dearness of thought and the moral courage to distinguish between truth and error. Pilate inquired of Christ, “What is truth?” (John 18:38). Let us proceed further in our quest for truth in this extremely vital problem of origins.

## WHAT DO WE MEAN BY EVOLUTION AND CREATION?

EXPERIENCE teaches us that every person one meets differs from all met before. Unless born an identical twin, every human being is unique, different from all others who live or have lived. This is probably true of all animals and plants. Complex mechanisms exist to produce this pleasing variety in appearance. These internal conditions in conjunction with external factors of the environment result in differences among horses, and differences among dogs, and even differences in the detailed shape of leaves on the same tree.

However, in all this diversity there is another observable fact that is equally interesting and important. This is the fact of discontinuity. There are many varieties or breeds of horses, and the same is true of cows, but even a superficial study will reveal that it is not possible to arrange the breeds of horses and of cows in such a way as to form a continuum from horses to cows with individuals midway which are as much like one as the other. Between horses and cows a clear-cut gap exists.

This obvious fact of discontinuity exists throughout both the plant world and the animal world. On all sides mice, cats, dogs, horses, cows, maple trees, oak trees, roses, chrysanthemums and irises are, easily distinguishable one from the other. We may refer to these clusters of individuals as basic types of animals and plants. These clusters may be compared to islands that have no bridges connecting them. Yes, in this world where all individuals are diverse one from the other, there also exists a clear-cut discontinuity that sets off each basic type or cluster of individuals distinctly from every other basic type.

It is well at this point to remind ourselves that among fossils this very same discontinuity exists. However, evolutionists tell us that connecting links between distinct basic types are present among the fossils. But here again we find the idea is based on opinion and not upon coercive evidence. Because the Archaeopteryx had feathers, teeth in its bill, and a long, fleshy tail with a single row of feathers along the sides, it is said to have been a connecting link between birds and reptiles. Was it a connecting link or a created basic type? Your faith—either in evolution or in special creation—will determine your vote here. Such is the unsatisfactory nature of subjective evidence.

The modern wildebeest or gnu of Central Africa appears to have the head of a buffalo, the tail of a horse, and the limbs and hoofs of an antelope. Is it a connecting link between these three basic types? With the successfully living and reproducing gnu staring him in the face, no evolutionist suggests such an idea. However, if there were no living gnus but only fossil forms, as in the case of the Archaeopteryx, there is small doubt that it would be heralded as a transitional form bridging between buffaloes’ horses, and antelopes. The entire collection of connecting links among fossil forms constitutes an intriguing display of what complete faith in a hypothesis can do where no real, that is, coercive, evidence is on hand to make it possible to sift the true from the false.

The natural fact is before us. Plants and animals do exist in discontinuous clusters so that very little experience is necessary to distinguish a birch from a beech, a flying squirrel from a bat, or a man from a chimpanzee. The question arises quite naturally, What was the origin of all these basic types of organisms?

UP to 1859, scientists and laymen in general had never doubted the literal interpretation of Genesis. Except for a few irregulars such as Buffon, Erasmus Darwin, Lamarck, and Goethe, men generally accepted the Biblical doctrine of special creation. But with the publication in 1859 of Charles Darwin’s

book *Origin of Species*, a substitute doctrine replaced that of special creation and was spread pretentiously before the attention of the world.

A valid explanation of why Darwin's idea of organic evolution caught the fancy of a vast majority of thinking men and women within three decades after its publication lies outside the realm of natural things. His suggestions were not verifiable, but somehow the free rein they gave to the reader's imagination led him to think that concrete examples of actual change of one basic type into another by natural processes had been given. Darwin wrote simply and interestingly of things in the daily experience of everyone, and although the reader might be untrained in, and completely ignorant of, biological processes, still he felt that he understood how change had taken place. In fact, he almost imagined himself at the helm directing some intricate mechanism that could transmute an apelike creature into a man. Thus, ignoring law-bound force in nature and building upon a base of a few well-known facts by a process of adding assumption to assumption and of exploitation of the plausible, Charles Darwin persuaded himself that Genesis was wrong and that complex forms of life had developed from simpler forms. Having first persuaded himself on this point, he was able also to persuade other open-minded individuals.

The idea of evolution with its thesis of unlimited progress, took hold upon the minds of men and has held them fettered ever since. Before many years had passed, laboratory scientists discovered that Darwin was wrong in every device that he had assumed could accomplish changes fundamental enough to produce new basic types. However, so wedded had scientists become to the idea of evolution, that they continued to add to an elaborate superstructure even though not one supporting pillar of demonstrated natural fact could be adduced that was capable of producing changes basic enough to justify the hypothesis.

A number of processes of change in organisms have been discovered. Of these, three have been studied painstakingly and are commonly known as recombinations, gene mutations, and chromosomal changes. However, it is extremely important to our understanding to bear in mind that in not one instance have these processes, working singly or all together, accomplished more than a new variety of a basic type of plant or animal which was already in existence.

In our day there are two schools of thought and belief in the matter of origins-evolutionists and creationists. The essential doctrine of evolution is the belief that all plants and animals have developed from one, or a few, simple blobs of protoplasm through a continuance of millions of years. The atheistic evolutionist believes that living protoplasm came from the inorganic materials merely by chance, and that by similar wholly fortuitous occurrences, events that, according to Darwin, were under the guiding principle of natural selection, the original blob gradually developed into the extremely complex, marvelously balanced symphony of interrelated systems that we recognize as our body.

The deistic evolutionist avoids the hurdles of origin of materials, origin of natural forces, and origin of the first living blob, by assuming a God who created the materials and the forces and the first protoplasm but who then left this first life to work out its own evolutionist development as best it could in natural ways.

The theistic evolutionist asserts that he believes the Bible to be God's inspired Book for man. He recognizes God as Creator of all we see about us and as the constant Sustainer of the universe. However, he refuses the literal Genesis portrayal of origins and says that although the Genesis record is one of special creation, still it is incorrect because scientists have "demonstrated" that organisms have arisen by evolution. Therefore God must have created man by evolving him upward through the beasts.

Evolutionists are very difficult to classify. Certainly, to say that they are either atheists, deists, theists, or agnostics is an oversimplification. It is very possible that no two evolutionists have identical philosophies in all details. Nevertheless, they do have one belief in common. That belief is that man is blood-related to the lower animals. In fact, according to their belief, every hereditary determiner in man has come to him from his amoeba like, fishlike, reptile like, insect like, apelike ancestors.

Possibly it is a mere play on words, but actually, according to evolution, man does not have one drop of human blood in him. He is completely "of the beasts." The doctrine is a flat denial of Genesis 2:7, which clearly states that man was formed from the dust completely distinct and apart from the beasts. He only was created in the image of God (Genesis 1:26, 27).

In the same way that modern evolutionists refuse to be charged with all the evolutionist explanations of Aristotle, Lamarck, Charles Darwin, Weismann, and De Vries, so do modern special creationists refuse to be held responsible for all the creationist explanations of the school men of the Middle Ages, of Bonnet, Linnaeus, Cuvier, and Agassiz. The modern special creationist brushes aside all human speculation of the past fifteen centuries and goes directly to God's Word for the truth about the origin of plants and animals.

I have yet to find a satisfactory definition of the doctrine of special creation in any dictionary or evolutionist textbook. This confusion with regard to the teachings of the modern doctrine of special creation cannot be blamed on evolutionists, because all they can do is define it as it was taught by the noted creationists named in the preceding paragraph.

The shortcomings of current definitions can be illustrated by the one we find in Webster's Dictionary. We read, "Creationist . . . one who believes that distinct species of animals or plants were separately created." Again, in a popular biology text of our day we read, "Special creation. The doctrine that each species of organism is specially created." These definitions fail on the same point. They omit a definition of the debatable term species.

During the most active part of the life of the creationist Carolus Linnaeus, famous Swedish naturalist and father of taxonomy (the science of naming plants and animals), he declared, "There are just so many species as there were forms created in the beginning." In each of several editions of his great work, *Systema Naturae*, except the last, he emphasized the assertion, "No new species." Because Linnaeus, a famous creationist, attempted to assign species names to clusters of individuals of plants and animals that he thought constituted the created units, the man on the street today, and even the scientists, are of the opinion that all believers in special creation hold that all species were created by God and set down in the very spots where we find them today. Actually, Linnaeus believed that the descendants of the originally created units migrated out over the earth, and it was Louis Agassiz, the "last of the noted creationists," who believed the Creator formed the species and set them where we find them today.

To get at the truth here we must know first that modern creationists do not believe that every group of individuals to which Linnaeus assigned a species name was necessarily a bona fide Genesis kind. An illustration here would be his naming of the American bison and the bison of Europe. To these "buffalo" Linnaeus assigned two species names, *Bos bison* and *B. bonasus*, respectively, indicating that he considered them separately created kinds. Because of their similar appearance and because they are easily cross-fertile, modern creationists believe they are blood descendants of the same ancestors, and thus members of the same original basic type.

Furthermore, since Linnaeus' day, at the hands of certain taxonomists of the Jordanian school, the scope of characters that determine membership in the group of individuals assigned to the species category was definitely reduced, so that there now appear in our taxonomies great numbers of "species" that are actually no more than mere varieties. Illustrations here would be the nine "species" of red foxes in North America, the six species" of coyotes west of the Mississippi River, and the seven species" of wild goats, or ibex, in the mountains of Eurasia. Possibly the crest of the flood of splitter taxonomy was reached when Sturtevant assigned "species" names to the different breeds of corn, *Zea mays*, as follows: *Zea tunicata* (pod corn), *Z. everta* (pop corn), *Z. indentata* (dent corn), *Z. amylaca* (flour corn), *Z. indurata* (flint corn), and *Z. saccharata* (sweet corn). These varieties of corn are all readily cross-fertile. Modern creationists do not believe that God created every variety of organism to which splitters have assigned species names.

The absurdity of holding that every modern "species" was created by God becomes still more apparent when we recall that quite a number of new "species" have developed under our very eyes. One example is the new variety of vinegar fly developed by Kozhevnikov from two strains of *Drosophila melanogaster*, and aptly named by him *Drosophila artificialis*. Goodspeed and Clausen produced a new "species" of tobacco by crossing the tobacco *Nicotiana glutinosa* with the tobacco *N. tabacum*. To this new "species" they assigned the name *Nicotiana digluta*. Spontaneous crosses frequently occur in nature between strains or varieties as illustrated by the new "species" of pink-flowered horse chestnut, *Aesculus carnea*, which appeared as a cross between two white-flowered "species," *A. pavia* and *A. hippocastanum*.

The popular explanation of special creation, which defines creationism as a belief that all known "species" were separately created by God in the beginning, is an erroneous explanation based on the misconceptions of a few "noted creationists" of an earlier day. In the light of the present indefiniteness in the use of the word species as it appears in our taxonomies, and in the face of the knowledge that new "species" have been developed in the laboratory and also appear spontaneously in nature, it is plain that such a theory is not correct.

In order to determine the true origin of all living things, believers in special creation go directly to Genesis 1, where they read that God created plants and animals after their kinds, and it is stated that the plants brought forth after their kinds. In this Genesis record we learn that all types of plants and animals were created within six solar days. The statement of Genesis 1:11, 12 leaves no doubt with regard to the form in which plant life first appeared. We are told simply and clearly that all plants, from the simplest, moulds, carpeting forms of damp places, to trees of fruit, were brought forth from the ground on the third

solar day. There is no hint of a development from simple to complex.

Likewise, concerning the animals we read in Genesis 1:20-27 that on the fifth and sixth solar days every type, the most complex as well as the most simple, appeared in the water and upon the land instantaneously with no extended developmental period in which the complex evolved from the simple.

Because the record of Genesis very clearly portrays that plants and animals were created after their kinds and, in the case of plants, are stated to have brought forth after their kinds, special creationists today believe that all our basic types were specially created. These morphologically distinct and reproductively isolated units produce the pleasing discontinuity that is so easily observable everywhere about us. From Creation week down to our day, ducks are easily distinguished from chickens, and every time a duck egg hatches, nothing other than a duckling ever appears. We plant sweet corn in our gardens and too unthinkingly pick ears from the plants that grew from the grains we planted, ears that are filled with corn grains just like those we planted, seldom pausing to note that this fact of the production by corn plants of seeds identical with those we placed in the ground is exactly what Genesis portrays. Our earth is filled with thousands of basic types, and they are as easily distinguished one from the other as ducks are from corn. The literal Genesis and the face of nature today present a beautifully harmonious story of cause and effect.

In our day when the word species probably erects a different picture in the mind of every person who thinks about it, a basic necessity exists that it not be used in a definition of special creation. I would suggest that special creation be defined as follows: Special creation is the doctrine that the earliest ancestors of all basic types of plants and animals were created by God a few thousand years ago on the third, fifth, and sixth 24-hour days of a seven-solar-day sequence called Creation week. For practical purposes the fertility test is the best way to discover the basic types among sexually reproducing forms. All individuals that are cross-fertile belong to the same basic type. In parthenogenetic forms where eggs develop without fertilization, and in forms where sex apparently does not exist, morphological and physiological characters are sufficient to distinguish the created units.

Thus the basic difference between the doctrine of evolution and that of special creation lies in the manner of origin of the basic types. The evolutionist holds that simpler forms produced the more complex or more highly specialized, and all forms from amoeba to man were evolved by natural processes and are blood-related. The creationist contends that no two basic types are blood-related. All Genesis kinds of plants and animals were formed by the Creator quite instantaneously from the dust in a miraculous manner.

Some evolutionists are atheistic, or at least agnostic. In the cases where the evolutionist accepts a higher power than natural forces in the formation of organisms, his creator at best is a being who, in the development of plants and animals, made many false, apparently faulty, and unwise starts in attempting to develop the more complex and more specialized forms. It would appear that such a creator had to do much experimentation involving great waste of life in order to discover which type had the greatest survival value. The Darwinian brand of evolution requires a bloody reign of tooth and claw of many millions of years' duration to eliminate the false starts and the unfit. After perpetrating millions of years of bloodshed and suffering, the god of the evolutionists, as his very best work, can present as his man merely a noble beast that is constantly drawn backward and downward by the hereditary determiners of his bestial ancestors.

By contrast, the God of the creationist, in His omniscience and omnipotence, created a perfect world and placed in stewardship over it a being who, although formed from the dust, was His son (Genesis 2:7; Luke 3:38). This man, although made of the same material from which animals were made, and although assigned the same basic food nutrients given to the beasts for the building and maintenance of his body, was yet, because of his peculiar and noble origin, distinctly separate from the animals and shared not one drop of common blood with them. Furthermore, by right of his distinctive origin as God's son, and through the imputed righteousness of his Elder Brother, he can lay rightful claim to all the privileges of a member of the household of God.

## **HAS SCIENCE SHOWN CREATIONISM TO BE OBSOLETE?**

IT IS NOT uncommon in college science texts to run across the claim that the advance of natural science has shown scriptural assertions to be obsolete. The Bible, in common with man-made books, has suffered more or less from hasty, superficial, and careless readers. An illustration of this is furnished in the following paragraph from a popular general biology text for colleges:

“The Bible alludes to this belief [in spontaneous generation] when Samson propounded his riddle,

‘Out of the eater came forth meat, and out of the strong came forth sweetness.’ Samson saw flies coming out of the decaying body of a lion, took the flies for bees, which he believed were arising spontaneously from the lion’s body, hence the riddle.”

When we turn to Judges 14 and read about this episode in the life of Samson we find that he had good reason to know that the insects inhabiting the dried carcass of the lion were not flies but honeybees. He broke out a section of their honeycomb and ate it, and took some home to his parents. To assume that Samson believed these insects had arisen from the dried flesh of the lion by spontaneous generation is to suggest an idea that finds in the story not the slightest basis for acceptance.

This tendency to impute to the Bible, teachings that its literal text does not support has been prevalent for many centuries. Perhaps the most notorious period in history for inaccurate interpretation of scriptural statements having to do with natural phenomena was that of the Middle Ages, a period that in round numbers extended from AD 400 to AD 1400.

During these centuries men in general, and even leaders in the Catholic Church, believed that the Bible taught (1) a flat earth with four corners, (2) a geocentric solar system in which the earth stood still at the center while the sun revolved around it, (3) spontaneous generation, which continually produced living forms from dead organic materials, (4) extreme fixity of species, (5) prenatal influence of the sight-transfer type, and (6) a worldwide Noachian Flood.

In order to understand the attitude of modern science toward the Bible it is important to bear in mind that even today scientists quite generally believe that the six items listed in the paragraph above are actually Biblical teachings. History easily reveals the fact that church leaders of the Middle Ages did present these interpretations as the teaching of the Scriptures on these points. In our evaluation of the Scriptures it is extremely vital that we distinguish between what the church leaders thought the Bible said and what it actually does assert. We will consider rather briefly each of the six items that during the Middle Ages were considered to be scriptural teachings on these points.

1. Flat earth with four corners. This idea arises from the reading of Isaiah 11:2, “He shall . . . gather together the dispersed of Judah from the four corners of the earth,” and of Revelation 7: 1, “I saw four angels standing on the four corners of the earth, holding the four winds of the earth.” These are the only statements in the Bible that might be construed to mean that the earth is flat with corners. However, we all know that today we hear this same expression not uncommonly, and may use it ourselves, even though just about everybody today knows that the earth is round. The phrase “corners of the earth” is really a poetic expression that in plain speech means the points of the compass.”

Although the Greek philosophers Pythagoras (sixth century BC) and Aristotle (fourth century BC) both understood the earth to be round, and although the Greek geographer and astronomer Eratosthenes (third century BC) not only held that the earth was round but estimated its circumference to be 28,800 miles, thereby missing the true circumference of 24,874 by only a few thousand miles, still their knowledge seemed too advanced for the age, and by the time of the Middle Ages men had returned to a belief in a flat earth. The fact that the church leaders of that period believed that the Bible taught a flat earth is interpreted by most modern scientists to mean that the Bible actually teaches a flat earth.

It was not until the navigators of the fifteenth and sixteenth centuries actually sailed round the earth that man understood that he did live on a round earth. But because of the opinion of the church of that period that the earth was flat, the man on the street and even the scientists concluded that the Scriptures taught a flat earth. In this way it came about that when it was demonstrated by coercive evidence that the earth was round, scientists mistakenly believed that they had proved the Bible wrong on that point of natural science.

2. A geocentric solar system. Just as we find appearing frequently in our speech the expressions “sunrise” and “sunset,” so do we find many references in the Scriptures to the rising and the setting of the sun. In our case we remark about the sun coming up and going down without meaning that we understand that the earth is standing still while the sun rotates around it. Interestingly, however, we find people who insist that when these same expressions regarding the rising and setting of the sun appear in the Bible they must mean that the Bible writers believed our earth stood still in the center of the solar system.

When Joshua commanded the sun and moon to stand still (Joshua 10: 12), are we to understand (a) that the sun was actually moving around the earth, (b) that Joshua thought it so moved even though it did not, or (c) that Joshua, possibly without any astronomical information regarding the relative motions of the earth and the sun, was merely using the understandable expression of his day? We must admit that if we, even with our knowledge of the relative motions of the sun and our earth, were engaged in a great work for God which we believed just had to be finished before dark, it is very probable we would use essentially the

same expression that Joshua used, and cry, "O God, please stop the sun for a while and grant us more time!" The point that must not be passed over here is the fact that the references in the Bible to a moving sun do not assert that the sun moves around our earth.

However, we must bear in mind that during the Middle Ages the man on the street, and also the Fathers of the church, understood that the earth did stand at the center of the solar system and that the sun did move around it. And because the Fathers of the church interpreted the Bible as teaching just that, scientists today still believe that the Scriptures teach a geocentric solar system.

The facts regarding Galileo (AD 1564-1642) and his encounter with the church over whether it was the sun or the earth that moved are well known to just about everyone. The church had made the mistake of building into its dogma certain current scientific explanations of the relations of the earth and the sun. Although the Greek philosopher Pythagoras (sixth century BC) and the Greek astronomer Aristarchus of Samos (third Century BC) had taught that the earth moved around the sun, still, in the second century BC, the Greek astronomer Hipparchus and the Greco-Egyptian astronomer and geographer Claudius Ptolemy had influenced men to believe again in a geocentric solar system. This opinion of scientists was accepted by the Catholic Church as a part of its dogma, and because of this, the church found itself in difficulty with Galileo. Although Galileo was called to Rome and forced to declare as false his doctrine of a moving earth, and although he was kept housed under the eaves of the Vatican for the rest of his life lest he be tempted to further promulgate additional "heresy," his discoveries in celestial motions, with those of his more fortunate antecedents, Copernicus and Johannes Kepler, were studied by younger scientists who were able to popularize the actual coercive evidence for the movement of the earth around the sun.

The only thing that most scientists of our day get from this embarrassing experience of the church is the mistaken conclusion that the Bible must teach a stationary earth with the sun revolving around it. Imbued with a strange exuberance, they chalk up what they think is Item 2, where man has assumedly proved the Bible to be wrong in matters of natural science.

3. Spontaneous generation. Another characteristic belief during the Middle Ages was the belief in spontaneous generation. Men who held the Bible to be God's inspired word quite unanimously thought that it clearly indicated that the earth was still producing living forms from inorganic materials or from dead organic substances.

The basis for this belief was Genesis 1:11, 24. Here we read the commands "Let the earth bring forth grass, the herb yielding seed, and the fruit tree yielding fruit after his kind. ... Let the earth bring forth the living creature after his kind, cattle, and creeping thing, and the beast of the earth after his kind."

Here again, largely because it accepted Aristotle's explanations in natural science, one of which was spontaneous generation, the church taught that these commands in Genesis were still actively effective in the earth. Strangely the church school men failed to read the whole Creation story. According to Genesis, God gave these commands for the reproduction of plants and animals only on days three, five, and six, when He was placing in the earth the basic types of all living things. Then after the earth was supplied with the self-reproducing organisms that God considered sufficient, according to Genesis 2:2, "God ended his work." Thus God filled a deficiency by commanding the earth to bring forth. But after the deficiency was corrected and the earth was outfitted according to plan, the record is that God ended His work. Upon what basis could one possibly presume that this record was inaccurate and that God did not really end His work of generation? Thus, actually, there is no Biblical basis for the assumption that the earth was still generating living things from the nonliving. But such was the teaching of the Catholic Church, and because the church of the Middle Ages interpreted the Bible that way, modern scientists are generally of the opinion that the Bible teaches spontaneous generation.

Even learned and prominent men of earlier centuries believed in spontaneous generation. The accounts of some of their beliefs make fantastic reading. Aristotle (fourth century BC) believed aphids arose from dew, and fleas from putrefying matter. The English philosopher and statesman Sir Francis Bacon (AD 1561-1639) believed that spore plants came from certain kinds of earth, insects were "creatures bred of putrefaction," lice were "bred by sweat close kept," and fleas "principally of straw and mats, where there hath been little moisture." Van Helmont (1577-1644), Flemish physician and chemist, records that he saw rats arise new from a pile of bran and old rags in the corner of a shed. The noted English anatomist, William Harvey (1578-1657), who first demonstrated the circulation of the blood, agreed with Aristotle in the origin of fleas and mosquitoes.

However, as man began to study nature more carefully he came to doubt the actuality of spontaneous generation, or abiogenesis as it was commonly called. The Italian physician Redi (1621-1697)

performed the first testing experiments in 1668, and his work was confirmed and extended by Swammerdam (Holland, 1637-1680) and Vallisnied (Italy, 1661-1730), until the notion of the spontaneous origin of any forms of life visible to the unaided eye was banished from the minds of scientific men. It remained for the English physicist, John Tyndall (1820-1893), and the French chemist, Louis Pasteur (1822-1895), to perform experiments careful enough apparently forever to disprove, on an experimental basis, the hypothesis of abiogenesis of microscopic forms. That atheistic biologists of our day strongly desire to show that living substance can spring from the nonliving, still does not weaken the strength of the coercive evidence that verifies the fact that only God can give life (Isaiah 42:5; Acts 17:25).

The significant point we wish to illuminate here is the fact that the leaders in the Catholic Church of the Middle Ages inaccurately thought that Genesis taught spontaneous generation. And because the church promulgated this invalid interpretation of the Scriptures, modern scientists insist that the Bible does teach abiogenesis, and that they can chalk up Item 3 in which modern science has proved the Bible to be inaccurate in natural science.

4. Extreme fixity of species. As far as the written record goes, the Greek philosopher Aristotle was about the only man after Adam and before the time of Christ who gave much thought to the basic types among plants and animals. Aristotle conceived of a Creator who first produced simple forms of life, and who then some time later prepared from these earliest forms other types more complex. This procedure was followed as the centuries passed until finally nature stood with her rich complement of varied types, each more complex form having been derived from a preceding simpler form. If Aristotle were living in our day we would say he was a theistic evolutionist.

During the first centuries following Christ little study seems to have been given to the significance of the assertions of Genesis that plants and animals were originally created after their kinds. The noted Church Father Augustine (AD 354-430), later sainted by the church, appears as the first Christian to show any particular interest in the origin of plants and lower animals. Characteristically, after the manner of that day, he carefully studied any ancient tomes that he could find. In this way he became acquainted with the writings of Aristotle and was impressed with that Greek's explanation of the origin of living things. Because Aristotle conceived of all the types of plants and animals having been formed by a Creator, and because Augustine was not sufficiently read in biology to be able to criticize Aristotle's explanation, he decided that Aristotle's philosophy with regard to origin of kinds was harmonious with the record of Genesis.

It thus came about that, although to all intents and purposes the church accepted the story of special creation in Genesis, in actual practice it was evolutionist in its understanding and interpretation of the origin of life forms. This position of the church continued down through the centuries and was given an additional boost by Thomas Aquinas (1225-1274), who later was also sainted. Because of the vagueness of Aristotle's philosophy of origins, it had sufficient latitude to be accepted generally by scientists both inside and outside the church.

However, beginning just after the middle of the sixteenth century, a marked reformation occurred within the church on the point of origins. A Spanish theologian named Suarez (1548-1617) wrote a tract entitled *Tractatus de opere sex dierum* in which he took exception to Aristotle regarding the work of creation. He was a strong advocate of the literal interpretation of all Scripture, and insisted that the days of Creation week were 24-hour periods of time. If the teachings of Augustine and Aquinas on this point had remained the teaching of the church, the establishment of the doctrine of evolution would have come much earlier than it did. But the conception of special creation brought into prominence by Suarez on the Continent became almost at once the teaching of the church on that point. This same literal view of special creation was taken up by John Milton (1608-1674) in England in his great epic *Paradise Lost*. The work of these two men molded into specific form a picture of Creation that became the orthodox opinion of the clergy of England and of the Continent.

That the days of Creation week were 24-hour days is the most obvious interpretation of the story as given by Moses. This part of the creationism of the school men is accepted by believers in special creation today. However, other aspects of the teaching of the church on origins were impossibly narrow and out of harmony with both Genesis and nature. Particularly did this narrowness appear in the conception developed by the school men who taught in the great church universities of the Middle Ages at Leipzig, Paris, and Oxford, where the students were numbered by the tens of thousands.

The type of special creation taught by the church in these universities was one of extreme fixity of species. It was taught that the portrayal in Genesis of plants and animals being created in such a way as to show different basic patterns, and to reproduce after their respective kinds, meant that all offspring of any

certain kind would be as like as pieces of the same kind of coin from the mint, and that the offspring would be as like their parents as coins are like the die from which they were stamped.

When Charles Darwin was studying theology at Cambridge University, he was told that Genesis asserted that no variation could occur in nature. Thus he started out on his five year voyage round the world thinking that if Genesis had actually been God-breathed and therefore true, he would see on all sides innumerable illustrations of this extreme fixity.

What Darwin actually found disturbed him greatly. Everywhere he went, instead of nature's showing evidence that the basic types had been specially created and set in the places where he found them, plants and animals appeared to have migrated over the earth and varied somewhat as they spread into distant lands.

The situation on the Galapagos Islands, some 600 miles west of Ecuador, particularly impressed him. On the nine largest islands of the group the giant land tortoises were present in fourteen "species," a situation obviously having developed through variation from a very few tortoises who found their way to these islands centuries earlier. The land snails were assigned different species names, but the genera were the same found in Central or South America. Strong currents from the Gulf of Panama and the coast of Peru flow westward through these islands, furnishing an agency for transportation of such animals as could endure the salt-water journey. The selective action of salt water was evident in the absence of amphibians who cannot endure it, and in the abundance of lizards, who raft across wide salt-water stretches in good condition.

The entire picture on the Galapagos Islands was one of migration over the earth accompanied with the development of varieties resulting from a combined effect achieved by isolation and the processes of variation. It seemed very clear to Darwin that all these "species" had not been specially created and set in their places. Wherever he went in his devious path round the world, this same appearance of movement over the earth, with some change, presented itself.

The tragedy of Darwin lies in his misunderstanding of the teaching of Genesis. He was content to let men who obviously were poor scholars read his Bible for him and tell him what it taught. Genesis asserts that organisms were created in distinct kinds, not species, and that some sixteen or seventeen centuries after Creation a worldwide Flood destroyed all land animals except those preserved in Noah's ark. This ark grounded "upon the mountains of Ararat" (Genesis 8:4), and from that spot in Asia Minor life spread out over all the land areas. This migration was exactly what Darwin observed. Unwittingly he had discovered the truth of Genesis in its portrayal of the replenishing of the earth by basic types, which traveled out over the earth, varying within the limits of the kind as they went.

It is tragic that he did not realize the significance of what he saw, for he had also discovered the truth of Genesis on the point of created basic kinds. His discovery of migration with variation was possible only because organisms were maintaining their basic kinds. He recognized that the land snails on the Galapagos Islands were related to those of Central America only because, with all their variation, they remained members of the same basic type, the land-snail kind. If they had evolved into marine snails he would have had no way of knowing that they had come from land snails. Darwin had a very great need right here for Genesis, in order to build the correct conclusion from his observational data. Everywhere he went he saw evidences of variation, but at no place did he see the origin of new basic types by variation. If he had read Genesis carefully he would have learned that kinds were created, not developed gradually through processes of change.

But Darwin believed that Genesis said, "No variation." He looked upon the earth and saw variation. He also saw the persistence of basic types but somehow failed to sense the extreme importance of that fact. Unfortunately, as the result of his observation of variation occurring right before his eyes he assumed Genesis with its account of created kinds was wrong, and with Genesis swept aside he felt free to come to any conclusion he thought best with regard to the origin of basic types, or "species" as he called them in 1859. In other words, his imagination could now have free rein, and he largely forgot that we live in a world of law-bound force. He assured himself of the fact of variation, and then speculated that if given enough time it could produce new basic types. In Darwin's thinking, that which was merely plausible came to be accepted as a verified fact.

It has been pointed out that one effect of the publication of Darwin's Origin of Species was an addiction of biologists to unverifiable speculation, and even to a decline in scientific integrity. Haeckel is notorious for his reckless statements in science, and Thomas Huxley for his shifty, devious, and theatrical argumentation. An area that is so replete with subjective evidence forms an ideal situation for the nimble and imaginative mind. Another example of tampering with the evidence was furnished by Dubois, who

admitted, many years after his sensational report of finding the remains of Java Man, *Pithecanthropus erectus*, that he had found at the same time in the same deposits bones that were unquestionably those of modern humans. Then, we all are familiar with the striking evidence that recently came to light in the discovery of the alteration of the Piltdown skull so that it could be considered an important link between man and his assumed apelike ancestors. As recently as the Darwin centennial celebration in Chicago in 1959, bold assertions were made, by scientists who should have known better, that evolution is now a demonstrated fact. They tried to use every ounce of their authority to hammer home this conclusion, which is based wholly on subjective evidence and speculation. Such is the Pandora's box that Darwin opened when he refused Genesis and gave free rein to his imagination, and presented simple possibilities as coercive proofs.

Eight years after Darwin returned from his world voyage he finally reached the point where he was ready to take a stand on the mutability of species (Genesis kinds), which he thought was contrary to Genesis. In 1844 in a letter to his friend, the botanist William Hooker, Darwin wrote, "I have read heaps of agricultural and horticultural books and have never ceased collecting facts. At last gleams of light have come, and I am almost convinced (quite contrary to the opinion I started with) that species are not (it is like confessing a murder) immutable."

Apparently without studying Genesis for themselves, and assuming that Genesis teaches an extreme fixity among living things in which variation could not occur, most scientists of our day declare that Darwin with his discovery of migration with variation proved that the creation after its kind, which Genesis describes, is false. Darwin, close observer that he was, above every other investigator should have perceived that every case of variation he studied constituted additional proof that the limits of the created kind (basic type) cannot be breached. He was able to trace the migration paths of many organisms simply because every variety of the kind continued to be a 100 per cent bona fide member of that kind. He thought he had proved the origin of new basic types. He actually proved that variation always does no more than produce new varieties of a basic type that is already in existence, a situation that could never in endless billions of years produce a new basic type. If new basic types cannot be produced, no evolution is possible.

It is thus through a failure to read Genesis carefully that scientists in general chalk up Item 4 where man has assumedly proved the Bible wrong in an assertion on natural science.

5. Prenatal influence of the sight-transfer type. This is the kind of prenatal influence in which it is assumed that a pregnant female looks upon some natural object, say a snake, and stamps a likeness of the object upon the surface of the fetus she is carrying. Scientists have demonstrated over and over again that such a transmission does not occur. One reason why it cannot occur is the fact that the nervous system of the mother is not continuous with that of the fetus. The umbilical cord, which extends from the placenta to the fetus, contains no nervous tissue capable of transmitting impulses. In other words, there is no physical mechanism by which something seen by the mother can be reproduced on the surface of her offspring.

While I was studying advanced physiology in one of America's universities some years ago, our teacher, for no apparent reason, inserted in his lecture the assertion that Exhibit A among the reasons why he could not accept the Bible as God's inspired word was the "fact" that it teaches prenatal influence of the sight transfer type. He referred to the experience of Jacob with Laban's flocks recorded in Genesis 30 and 31.

A reading of the story leaves no doubt that Jacob believed that such a transfer was possible. He prepared spotted and ringed sticks and set them before Laban's cows and goats and sheep. He appeared quite well-pleased with himself in this trick on his uncle. Indeed after he had set up his marked sticks, the ring-streaked, spotted, and speckled among the cows and the goats and the brown among the sheep, which by agreement were to be his, were more numerous than the colors that were to be Laban's.

If Jacob had been a good scientist he would have suspected that his device was not the cause of the effect he was getting. The sheep viewed the same ringed and spotted sticks, but their lambs showed no spots. They were pure brown. But Jacob missed this cue to the true cause, and continued for a time to think that his clever trick was the reason for the marvelous increase of his own flocks.

However, God finally sent an angel who appeared to Jacob in a dream and told him that the increase of his flocks was a result of the blessing of God working through the laws of heredity in Jacob's behalf, not the result of the marked sticks. Genesis 31:10-12 relates that most of the effective parents in the flocks were the colors that were Jacob's, that is, although Laban's cows and goats were not spotted or the sheep brown to the eye, still in their heredity they carried the genes to produce Jacob's marks.

Geneticists now know that spotting in cows and goats and brown in sheep are recessive to pure colors and white. Cows and goats could carry genes for spotting while they themselves were plain colored,

and sheep could carry determiners for brown although they themselves were white. When two recessives met at the fertilization of the egg, Jacob's colors were produced. God's blessing upon Jacob meant that two recessives met more often than either dominants or a dominant and a recessive. Thus the teaching of the Bible upon this subject is in harmony with demonstrated science. It does not teach prenatal influence of the sight-transfer type. Genesis 31 reveals the actual Biblical portrayal on the subject of heredity. Men of the Middle Ages believed in sight-transfer. Many scientists are mistakenly of the opinion that the Bible teaches this type of inheritance, and as a result of their careless reading, or lack of reading, they chalk up Item 5 where they assert that the Scriptures are obsolete on a point of natural science.

6. A worldwide Noachian Flood. It is a regrettable fact that during past centuries the church characteristically opposed any advancement in natural science. Discoveries by scientists, such as the relative motions of the sun and our earth, were typically declared by the church to be heretical doctrines, which merited excommunication for their originators. The area of geology was no exception. The pious at first resisted the idea that fossils had once been living organisms, and attributed them to a mysterious "Plastic force," or assumed them to be mere "freaks of nature" or even "devices of the devil." Some suggested that they had been hidden in the ground by God (or by the devil) in order to test the faith of man.

However, when the organic nature of fossils could no longer be doubted, it occurred to the church belatedly that here was a powerful support for the Bible. Accordingly fossil remains of animals, from large salamanders to mastodons, were explained to be remnants of human beings drowned in the Noachian Flood. In our country a typical explanation was that given in a letter to Cotton Mather written on July 10, 1706, by Governor Dudley of New York. In referring to a giant fossil molar from a mastodon, he remarked, "I am perfectly of the opinion that the tooth will agree only to a human body, for whom the flood only could prepare a funeral; and without doubt he waded as long as he could keep his head above the clouds, but must at length be confounded with all other creatures and the new sediment after the flood gave him the depth we now find."

As in the case of Charles Darwin, who was driven from acceptance of the Genesis record because of the church's interpretation of extreme fixity, it came about that as a result of the extreme and fantastic interpretations of Biblical references to a worldwide deluge, scientists were wearied with it all and came to believe that the Genesis account of the Flood was purely imaginative and had come from the superstitious tales of the Babylonians. The objects that should have helped greatly in showing that there had been a worldwide Flood were explained by churchmen in ways so obviously inaccurate as to foster a desire in thoughtful and observant individuals to be completely rid of any idea of a universal deluge.

The first man to formulate a clear-cut theory that rejected all supernatural agencies in the shaping of the earth's crust was the Scottish geologist, James Hutton (1726-1797). "No powers," said he, "are to be employed [in an explanation of changes in the earth's crust] that are not natural to the globe, no action to be admitted except those of which we know the principle." Hutton published this course of procedure in his book *Theory of the Earth*, which appeared in 1795. This point of view is known as the doctrine of uniformitarianism, and is a beautiful example of man whittling our earth down to his own small size, where he assumedly can handle it himself with natural processes and with one stroke be done with any reference to the supernatural. Probably no better example can be found of man refusing the whole of reality in seeking a comfortable explanation of the natural world.

Hutton's uniformitarian hypothesis was not generally accepted for some half a century, or until 1830-1833, when the British geologist Charles Lyell (1797-1875) published his great work *Principles of Geology*. Into this work Lyell assembled all available evidence bearing on the action of such agencies as water, wind, temperature extremes, volcanoes, earthquakes, and the like, and also all that was known about fossils. This marshaling of data on the cumulative effect of long-continued natural processes enabled man for the first time to become aware of the constant change the crust of the earth is experiencing, and to imagine the possibility of tracing the history of the earth through inferences based on the observation of natural operations that are still taking place. Because the scientist generally likes to stay just as near the earth as possible, this uniformitarian hypothesis was very attractive to him.

The idea of uniformity greatly strengthened Charles Darwin in his decision to reject the Bible story of origins. Because man could look about him and see these agencies in action, the explanation by the uniformitarian principle of everything found in the crust of the earth was most plausible. In our day the uniformitarian principle has taken so firm a hold upon the imagination of men as to cause them quite generally to reject the Biblical account of a worldwide Flood, and to view with marked intolerance any who refuse the principle of uniformity.

It is an interesting fact that those who believe in the doctrine of uniformity appear to be of the

opinion that he who refuses the doctrine and chooses to believe in a worldwide Flood also refuses to believe in any uniform action at all of water, wind, heat, cold, volcanoes, and earthquakes. The facts are that the Bible teaches a period of uniformity. In Genesis 8:21, 22 God assured man that never again would He destroy the earth with a flood, and that “while earth remains, seedtime and harvest, and cold and heat, and summer and winter, and day and night shall not cease.”

The changes accomplished during this stretch of several thousands of years since the Noachian Flood, during which time fairly uniform natural processes have prevailed, are what geologists have been studying. They see the changes accomplished by water, wind, and other like agencies during this period and have assumed that such natural processes could also have been responsible for the deposit of all sedimentary materials, for the pushing up of these layered deposits into mountains, and for all the tremendous amount of erosion that obviously has occurred. However, the more carefully these present-day processes of deposition, elevation, subsidence, and thrusting have been studied, the more evident it becomes that present-day processes are completely inadequate to explain more than the most superficial changes. The crust of the earth cries out against the extended principle of uniformitarianism. A total supernatural destruction of the crust of the earth at the time of the worldwide Noachian Flood is the only adequate explanation of what we see in the first several vertical miles of the earth's surface. But the misplaced faith of most scientists in the uniformitarian principle leads them to think that they have disproved the worldwide Flood described in Genesis, and they chalk up Item 6 where they think the Bible is inaccurate in assertions about natural science.

So again we raise the question, Has the progress of natural science shown scriptural assertions on natural science to be obsolete? A careful reading of both the Bible and history reveals that on these points of natural history there has been a wide discrepancy between the assertions of the Bible and the interpretations of the church regarding what the Biblical assertions meant. In reading the history of the Middle Ages, scientists have repeatedly confused the interpretation of the church with the assertions of the Bible. It was the church, not the Bible, that taught a flat earth, the revolution of the sun around the earth, spontaneous generation, extreme fixity of species,” and prenatal influence of the sight-transfer type.

It would appear that the Bible makes no statement about either the shape or motions of our earth. Bible commentators tell us that Isaiah 40:22, “It is he [God] that sits upon the circle of the earth.” refers not to the globular shape of our earth but to the vaulted sky above it. Genesis makes not the slightest reference to any extreme “fixity of species.” It does clearly assert that plants and animals were created after their kinds, not “species,” a most easily verifiable truth as we look about us today and still see distinct basic types, which always bring forth after their kinds. Concerning the sight-transfer type of prenatal influence, the Bible declares clearly against it in Genesis 31:10-12. God's interference in behalf of Jacob was explained as a control of the breeding of the flocks so that the laws of heredity could work for Jacob's interests.

With regard to the Bible doctrine of a worldwide Noachian Flood, the great majority of modern geologists have rejected it, as have many popular theologians. But a most important thought to keep in mind here is the fact that the natural evidence of the past which is available for the study of geologists is completely subjective or persuasive in quality. The entire stage setting of uniformitarianism versus a universal Noachian Flood consists of a uniformist and a diluvialist looking at the same items of evidence and giving their respective interpretations as their points of view dictate that these should be given. Coercive evidence that is accepted as such by both schools is absent.

It would seem that items as real as mountains and layers of rock would be coercive in quality, but interestingly every situation is capable of being “explained” in a number of ways by both uniformitarians and believers in the worldwide Flood. Which explanation is the best one? That depends on where you wish to place your faith.

It is an item for meditation by the sincere seeker for truth that although uniformitarian geology has been in preponderance for more than a century now, still the science of geology that uniformity has built is an astonishingly inadequate thing. It recently has been my privilege to attend the lectures and laboratories and to read the texts and references for eighteen courses in geology at a prominent Midwestern university. Although the principle of uniformity has been invoked for lo these many years in an effort to explain geological phenomena, still I never investigated a science where so little had been demonstrated and where so many unsolved problems exist. To illustrate, at the first meeting of the class in geophysics the teacher handed us a list of forty basic problems in the subject that were yet to be solved.

There must be some very real reason why so many years of hard work in geology have not been more fruitful in the explanation of natural phenomena. It would appear that the principle of uniformity is

just not adequate to explain the facts that stare at us so clearly among the canyons and mountains. Natural processes operating at present-day rates can never measure with the task of accomplishing what we see in the crust of the earth. It is the delight of the one who accepts the Bible account of the destruction of the first several vertical miles of the earth's crust, that the evidences on every hand of the operation of natural factors in supernatural ways is exactly what the Genesis account portrays.

Modern scientists believe that they have proved the Bible inaccurate in a number of its assertions about natural science. All they have done is to show that the inaccurate interpretations of the school men of the Middle Ages were truly inaccurate. It was possible to prove the falsity of those interpretations because they involved processes which are now going on, and coercive evidence could be brought to bear upon them. By contrast, the origin of basic kinds of plants and animals took place in the past and cannot now be demonstrated, and the Noachian Flood occurred several thousand years ago. Thus, because of the nature of these cases, all pertinent evidence is only subjective, never coercive. To say that evolution is a demonstrated fact, or that present forces at present rates of their operation could have accomplished what we see in the crust of the earth, is purely an act of faith. However, when natural forces consistently are unable to explain the major geological phenomena, it becomes a presumptuous act still to have faith in them as the sole mechanism concerned.

The two great areas of natural science upon which the Bible speaks—the origin of living things and the major features of our earth's physical structure are not subject to laboratory investigation, because they are not continuing processes. New basic types of life are not now appearing on the earth, nor are earth changes now taking place at all comparable to those that obviously occurred in the past. Therefore, the best that man, unassisted, can do is to observe the phenomena and speculate upon how they were accomplished. Because of this situation, and because of the great importance that man clearly understand the truth on these points, God stated the basic facts in His Word, man's Guidebook. The complete harmony between the facts of nature and God's Word, as well as the profound significance of these basic truths, is a source of endless delight to the thoughtful student of natural science. Rather than being obsolete in biology, chemistry, geology, and physics, the assertions of the Bible not only accurately explain the basic facts of today but also illuminate the future.

## **CAN VARIATION PRODUCE NEW BASIC TYPES?**

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ONE reason why research workers have made such remarkable progress in the realm of natural science is their employment of the open-minded approach to problems. Understandably, not much progress in the discovery of truth can be expected where the researcher makes his study in order to prove some preconceived idea.

The open-minded approach to a scientific problem is illustrated by an incident that occurred at a rather small coeducational liberal arts college with which I was once connected as a teacher. This college had joined in an investigation of diets of adolescents that was being conducted by the director of nutritional research in a nearby university. The 900 students of this college took their meals in the college dining room where a lacto-ovo-vegetarian diet was served. No flesh foods of any kind ever appeared on the tables. This fact was one of the main reasons why the nutritionist was interested in a nutritional study in that particular college. One part of the study involved running hemoglobin checks on the students, and it was found that the average hemoglobin picture for the college men was well above the average in the United States, while the average for the women of the college was definitely below the national average for women.

It so happened that the director of nutritional research who was conducting this study was an avid proponent of flesh-eating. In fact, this scientist was of the opinion that no one could be in good nutrition unless he partook rather heartily of flesh foods at least twice a day. The effect of personal prejudice on this study appeared several times in the discussion of the results. The director tried to keep attention focused on the poor blood picture of the college women, and quite insisted that it was the result of a lack of flesh in the diet. However, each time this reason was set forth the researcher was reminded that the men who ate at the same tables showed blood pictures markedly above the national average.

If left unchallenged, this research worker would not have been investigating the situation with an open mind, and as a result at least part of the conclusions would have been invalid. An open-minded study required that personal opinion be laid aside and that a careful study be made of all the factors involved. For

instance, it was necessary to take note of the fact that the dining room was on the ground floor of the men's dormitory, and that through the cold part of the winter only a few women would appear for breakfast. Instead, they would stay in their warm dormitory, and if hungry would eat a candy bar. That left the securing of blood-building nutrients to two meals a day, and it was necessary to recognize that the women tended more toward specializing on a few dishes while the men ate well of a more varied diet. Thus the indication was not that the lacto-ovo-vegetarian diet caused a poor blood picture, but rather that if the students selected their dishes thoughtfully they would discover that such a diet was completely adequate.

There can be no question that, in the vast majority of problems that can be investigated scientifically, the open minded approach is a requirement. Evolutionists and creationists labor shoulder to shoulder in the study of these problems. Significantly, problems that require an open-minded approach all have to do with the study of conditions that exist at the present moment.

But some of the problems that scientists face are not completely staged in the present; that is, they may not be continuing processes or, if continuing, may not be occurring at the same rates or concentrations in which they occurred in the past. Illustrations here would include the dating of materials from organisms that lived in the past; or the discovery of the origin of the basic types of plants and animals. Here assumptions are involved that cannot be tested objectively in the laboratory. Regarding the first illustration, it is the present practice in dating organic remains to assume that the existing proportion in the air of carbon 14 to carbon 12 also occurred at the time this material was part of a living organism. The demonstration that such an assumption is correct is an extremely difficult, if not impossible, task. Therefore, all the evidence obtainable is definitely subjective. In the second illustration, the appearance of new basic types is not occurring today and is not subject to laboratory demonstration. Neither special creation nor evolution of new basic types can be demonstrated in the laboratory. Therefore, as far as modern scientific procedure goes, all pertinent evidence is subjective and extremely speculative.

However, processes of variation are operating at the present moment in plants and animals and are subject to intensive open minded laboratory study. The question How much change are they producing? Is a very fair one. Special creationists of the later Middle Ages, during the time they were obsessed with the idea that Genesis taught an extreme fixity of "species," thought not only that firsthand investigation of nature was not worth the time of a Christian, but that such procedures as counting a horse's teeth were beneath the dignity of Christian gentlemen. They were so busily occupied with things belonging to the kingdom of grace and with preparations for the kingdom of blessedness as to have no time or interest left for investigations in the kingdom of nature.

Not so with the special creationist of our day. In the Bible we find the admonitions of Job 12:7, 8 to "ask now the beasts and the fowls of the air: or speak to the earth: and the fishes of the sea shall declare unto thee." And the instruction of Christ (Luke 12:24, 27) to "consider the ravens" and "consider the lilies how they grow." These admonitions clearly portray the fact that God set these living organisms in the earth for our study. One of the most obvious inferences from the Bible is the fact that only a few thousand years have elapsed since Creation week. That fact, along with the fact of a universal Flood and the redistribution of animals over the earth, raises the challenging problem How have so many geographical races arisen in so few thousands of years? In an endeavor to find the answer, the creationist investigates processes of variation most carefully. And naturally the evolutionist is searching diligently for laboratory proof that natural processes actually exist that are capable of producing changes so great as to result in the appearance of new basic types. Thus both creationist and evolutionist are absorbed in their investigation of present-day natural processes of change.

It is definitely apropos here to inquire, Can either creationist or evolutionist researchers investigate with an open mind this problem of the effectiveness of processes of change? Because the creationist is sure that basic types arose by special creation and have continued to produce only individuals that are unquestionably bona fide members of their respective types, his observations will unconsciously be influenced in the direction of recognizing enduring types, which produce nothing basically new. Likewise, because the evolutionist strongly believes that new and more complex or highly specialized basic types have arisen from simpler types as the ages have rolled, how hardly will he be able to distinguish between demonstrable facts and what he thinks his observations demonstrate. In other words, it is a difficult thing to know, from a study of the results of "scientific" research, which are true natural phenomena and which are figments of biased imaginations.

Even though we recognize that the entire topic of variation in plants and animals is one in which the records of investigators are shot through and through with biased speculation, still, evolutionists and creationists are agreed that hereditary variation, that is, processes of change that make it possible for

offspring to differ somewhat from their parents, can be placed in three categories as follows: (1) Mutations, or changes (assumedly chemical) that occur in the hereditary determiners (genes) themselves; (2) Recombinations, or different assortments of genes in the offspring from those that occurred in either parent; and (3) Chromosomal aberrations, or changes that result in addition or subtraction of one or more whole chromosomes or chromosome pairs, or in the arrangement of the chromosome material. There are also a comparatively few cases where variation in the offspring may come about through self-duplicating, mutable units located not in the chromosomes but in the cytoplasm.

These mechanisms appear to constitute the only heritable ways in which offspring can be produced that differ in appearance or quality from their parents. Environmental effects may cause marked changes in the appearance of individuals. If the ears of sun-red corn are left enclosed in the husk while developing, the kernels will be colorless. However, if the husk is opened so that sunlight comes in contact with the developing ear, a red pigment develops in the kernels. In fact, the normal expression of any gene commonly depends upon a certain environment. However, as in the case of sun-red corn, the genes for the character are passed on from generation to generation, not being affected by the environment. Many nonhereditary variations are produced by gross changes in the environment, such as the results of differential feeding, humidity, light, training, and so on. However, geneticists have demonstrated conclusively that these, along with mutilations of the body, do not affect the hereditary or germ line. Although the feet of Chinese women were kept small by tight binding for many centuries, still modern Chinese women have feet of normal size. Although the tails of mice have been removed promptly at birth for as many as twenty generations, still the offspring of the twentieth generation had tails as long as those of the first. Spruce trees grown from seeds harvested from scrawny individuals at timber line will grow into giants as stately as those taken from splendid specimens more than one hundred feet tall, provided they are planted in an equally favorable environment.

All of the studies of environmental effects upon the hereditary mechanism have demonstrated the fact that, with few exceptions, such effects do not change the gene picture of plants and animals. The only environmental factors that have been found to influence the genes are radiation, such as X-rays, radium rays, and ultraviolet light, and possibly temperature changes and chemical agents. Under the right concentrations radiation has been found greatly to increase the natural mutation rate. Normally, mutations occur apparently spontaneously, without any known trigger action in the environment.

This brings us to the problem of the effect of mutations upon the basic morphology and physiology of plants and animals. We have remarked above that a mutation is a change in a hereditary determiner or gene. Basically we are what we are in our color, form and structure, and function of body parts because of the genes that are in the nuclei of the millions of cells in our bodies. Genes are understood to be complex organic molecules that consist of many parts. A certain configuration of the parts of the gene molecule produces a certain effect in the body. If in some way a change occurs in the structure of the gene, there will be a corresponding change in the influence of the gene in the body. To take an illustration in plants, the petals of sunflowers are normally yellow. However, instances are known where a red-petaled flower suddenly appeared among its yellow petaled relatives, apparently because a mutation had occurred in the gene that was responsible for most of the yellow pigment. From that time on it produced red pigment; and because this change occurred in the reproductive part of the sunflower, this character of red petals was passed on to succeeding generations.

Mutation not uncommonly produces interesting and pleasing effects in nature. Not only may it result in new colors in flowers, as in the sunflower mentioned above, and in the Shirley poppy with its wide range of colors, which originated from a small red poppy common in English cornfields, but mutation has also produced double petunias, azaleas, stocks, carnations, daisies, and other species that arose from single-flowered plants. Other mutated plants are the dwarf portulaca, striped sugar cane, blotched leaf in maize, the Boston fern, red sweet potatoes, seedless oranges, and on and on. In the animal kingdom typical mutants are the short-legged Ancon sheep, albino men and other albino animals, hornless cattle, pacing horses, dogs with bull-dog faces, several colors of eyes in vinegar flies, and so on. Without doubt, many ecological varieties have resulted from mutation. For instance, the crayfish *Cambarus monongalmsis* is confined to springs with clear water, while *C. diogenes* lives in marshes and other stagnant waters.

Actually, in our day more harmful than beneficial mutations are known. Fruit flies with vestigial wings and hemophilia in human beings present examples of harmful mutations. But it is not impossible that organisms at their first appearance were endowed with the ability to mutate in order to make the earth a more pleasing home for man. Of course, that could be true only in a world where such a natural process could produce beneficial forms only. It seems most reasonable that the process of mutation has enabled

many basic types to spread into a wider range of ecological niches, as in the case of the crayfish just mentioned.

For this particular review of natural facts it is extremely important for us to realize that in all the thousands of cases of mutations that have been studied, mutational change has never accomplished more than to produce a new variety of an organism already in existence. No new basic types of plants or animals have been observed to arise through mutational change.

In like manner, the type of hereditary variation known as recombination cannot produce new basic types, because it consists merely of a reshuffling of genes that are already on hand. An illustration of a variety produced by recombination is found in Holstein cattle. Black-and-white color in Holsteins is due to a dominant gene. If a calf of this breed has received a gene for black and white from even one parent it will be black and white, even though it received a gene for red and white from the other parent. It is thus possible for black-and-white parents to produce a red-and-white calf. All that is necessary is that two recessives for color meet in the same fertilized egg. In the absence of the dominant gene that produces black and white, the recessive gene is enabled to manifest its character of red and white.

A second example is furnished by the genes for white and brown in sheep. White in this case is dominant, so that a sheep that is white may be carrying a gene for brown. If such a white sheep mates with another white sheep of this same heterozygous gene picture, a lamb may be born that is brown. These effects are known as reversions, or "throwbacks," and are not, properly speaking, new differences. Although they constitute the commonest source of different-appearing individuals, still they can give rise to nothing basically new, for they are due to arrangements of genetic elements already in existence, that without doubt have already appeared many times in the history of the animal or plant.

The third type of hereditary variation involves variation in numbers of chromosomes and rearrangements of chromosomal material. Because of space limitation and the technical nature of a discussion of this type of variation, we will have to leave it to the interested reader to pursue this subject in some standard genetics textbook. Suffice it here to give a few examples. In an earlier chapter, reference was made to the pink-flowered horse chestnut, *Aesculus carnea*. The parents of this "new species" of horse chestnut were *Aesculus pavia*, which carries a haploid number (the number in the germ cells) of twenty chromosomes, and *A. hippocastanum*, also with a haploid complement of twenty chromosomes. The chromosomes of these two white flowered species joined in the fertilized egg to produce a new fertile variety, or "new species," as it was called, of pink-flowered horse chestnut, which had a haploid complement of forty chromosomes. This illustrates the type of chromosomal aberration where variation results from a change in the number of whole sets of chromosomes. Such a phenomenon is referred to by geneticists as ploidy.

Many cases of the type of aberration where chromosomes (strings of genes) break up and pieces attach to other chromosomes, or exchange places in different chromosomes, have been studied. An example of the effects of such changes upon organisms is found in the many forms of seed capsules in the jimson weed. In deletion, a portion of a chromosome becomes lost, and the effect of such a loss in mice was to produce the strain known as waltzing mice-mice that seem to have wheels in their heads and cannot run in a straight line. Duplication of a section of chromosome in a vinegar fly produced a variant that had notched wings. Among squirrels the reversing of a section of chromosome resulted in a new variety of squirrel. But the fact that should stand out clearly in the mind of the student of chromosomal aberration is the inability of such changes to produce anything basically new.

In order really to appreciate the significance of the demonstrable fact that there are natural processes that produce offspring differing somewhat from their parents, we must recall that for three hundred years before the appearance of Darwin's *Origin of Species*, man had believed that the Bible taught an extreme fixity of species in which successive generations were as like as coins from the same die. Impossible as it is for us today to conceive of how man could have looked at nature and have seen so little and so inaccurately, the fact stands that until Darwin's day just about all men believed the reproductive behavior of nature was exactly as fixed and invariable as the school men told them the Bible said it was.

Then came Charles Darwin, a man who had no undue respect for theologians, and who, sadly, had little concern for what assertions the Bible might make on any subject. He was a man who was endowed with the power of keen observation, and one who was overly confident in his own ability to discover truth among subjective evidence. On every hand he saw the results of the operation of the processes of heritable variation we have just listed. Yes, indeed, variation was a fact, and then with the mistaken conception of the extreme fixity of Genesis brushed aside, Darwin gave free rein to his imagination and cherished the suggestion that variation could proceed endlessly so that, as he expressed it, "from so simple a beginning

endless forms most beautiful and most wonderful have been, and are being evolved.”

Because he so completely persuaded himself on this assumption of endless variation, and was so enthusiastic about it, and could marshal so many illustrations of variation among familiar forms, and because he was so plausible in his presentation, he was able to foist the doctrine of endless progression on the world. And being persuaded that Darwin was right, man decided that the account of special creation in Genesis was all wrong. Many concomitantly lost all faith in the entire Bible. Others, including the popular churches of our day, have tried to preserve faith in the Bible by developing a compromise doctrine, on the assumption that new basic types have actually evolved, which teaches that God created organisms by a process of development of complex from simple. Rather than preserving the faith of men in the Bible, this false doctrine of theistic evolution has actually undermined such faith. The account of beginnings in Genesis is very clearly written, and most obviously portrays origin by special creation. When a man is told by an assumed authority that this clear portrayal in Genesis has been proved wrong, and when he accepts the statement as true, it then seems logical to him to disbelieve other Bible assertions.

The heartbreaking tragedy of this chapter of history lies in the fact that Genesis does not teach extreme fixity of “species.” Genesis relates the creation of different kinds, and tells of the production of offspring after the kinds of the respective parents, but says not one word about no variation. Genesis also relates the story of a universal Flood in which all land animals perished except those preserved in the ark. These survivors debarked in the mountains of Ararat and during succeeding generations pushed out over the earth exactly as Darwin discovered they had done. But the surviving original kinds were still clearly observable in nature. Without difficulty men, chimpanzees, horses, dogs, vinegar flies, magnolias, Jimson weeds, and oaks were distinguishable one from another. A situation exactly in harmony with the assertions of Genesis.

Darwin’s fate is characteristic of the fate of all the self confident sons of men. First, the god of deceit led him to believe that the Bible taught no variation; then when Darwin discovered that variation did occur, the same god pushed him beyond the facts to the other extreme where he concluded that the book of nature taught that “endless forms . . . have been, and are being evolved.” A man must ever be on the alert, lest he so completely brace himself against one belief as to have no resistance to being pushed to the opposite extreme, an extreme that is equally invalid. If modern geneticists could shake off the drowsiness of the enchanted meadows, clear their vision, and attack the problem of variation with minds truly open, they would perceive that mutation, recombination, and chromosomal aberration can do no more than produce additional varieties of basic types that have existed since Creation week.

One of the incomprehensible mysteries of our day is how sincere scientists can observe the discontinuity among fossils (where no true connecting links bridge the abysses between basic types), and how they can multiply so many cases of variation among living forms (which never are more than additional varieties of basic types that already exist), and still miss the law of reproduction that in stentorian accents cries to them from every side, the law that declares, “No new basic types!” Any other natural process that was even half so obvious would have been declared a law long ago!

But the evolutionist unreasonably pleads for more time: “Just give these processes of variation enough time, and they will produce a new type!” Every case of obviously limited variation notwithstanding, the evolutionist still invokes Father Time as his creator. Natural processes of variation in instances almost beyond computation have been meticulously and critically studied in the laboratory for half a century with uniform results no new basic types.

In the face of mountains of evidence for fixity of basic types, the continued plea that time will produce new types becomes unreasonable because it is contrary to observable facts. Suppose we see a boy tugging at his bootstraps trying to lift himself. Would we be reasonable if we say to him, “Just keep trying, sonny, and you will finally be able to lift yourself”? No. There is a law in physics that says to this boy, “Just as hard as you pull up, just so hard you push down.” The biological law of “no new basic types” is as completely established as Newton’s third law of motion. The explanation of the failure of scientists to recognize this law of biology does not exist in the realm of natural things. In every instance where scientists refuse to accept a clear teaching of the Bible on natural science they enter a world of make-believe, and how hardly will they arrive at the correct answers on those points!

## **COMPLETELY ESTABLISHED SCIENTIFIC FINDINGS**

IN THE preceding chapter we caught a glimpse of what science has discovered in variation among

plants and animals. Let us now go just a little further in our investigation of scientific findings that bear on the problem of origins.

That evolutionists have great faith in their theory is illustrated in the following two statements. The first is by Theodosius Dobzhansky, professor of zoology, Columbia University, and is found on page 11 of his book *Genetics and the Origin of Species*, third edition (Columbia University Press, 1951): "At present, an informed and reasonable person can hardly doubt the validity of the evolution theory, in the sense that evolution has occurred. The very rare exceptions (such as Marsh, 1947) prove only that some people have emotional biases and preconception strong enough to make them reject even completely established scientific findings."

The second statement is by Sol Tax, professor of Anthropology, University of Chicago, and is found on page 247 of the book *Issues of Evolution*, which is the last volume of the three-volume set *Evolution After Darwin*, published by the University of Chicago Press, 1960: "But perhaps most of our schools still teach evolution, not as a fact, but as only one alternative among explanations of how the world came to be what it is. No matter what gets done about our religious beliefs, this particular phenomenon must now come to an end. We cannot deal with the difficult problems of the world unless our education takes account of demonstrated empirical fact."

Here in the first statement we have the assertion that a person can accept the doctrine of special creation only by rejecting "even completely established scientific findings." In the second statement we have the assertion that evolution is a "demonstrated empirical fact." We must bear in mind that established scientific findings and demonstrated empirical facts constitute coercive evidence, that is, evidence so obviously true as to make any other reasonable explanation impossible.

Does the proof for evolution consist of items that are demonstrated empirical facts, that is, evidence that is coercive in nature? Those who have delved into textbooks on evolution know that they are filled with a multitude of allusions to items of natural history that are purported to Prove that a progressive development from simple to complex and specialized has occurred over a duration of millions of years. These factual items are marshaled from the areas of classification, comparative anatomy, vestigial organs, comparative physiology and biochemistry, embryology, paleontology, and geographical distribution. In the space allotted to us we cannot go into a discussion of each of these areas, but we can take at least one illustration from each, in order to portray the actual state of affairs that exists among these alleged evidences for evolution.

With regard to classification, it is an interesting thing that broad similarities in structure exist, which include many diverse forms. For example, all animals may be placed in one or the other of two groups with regard to whether their bodies consist entirely of just one cell or more than one cell. Animals whose bodies consist of more than one cell may be divided into two groups—those whose body cells are laid down in two layers and those whose cells are laid down in three layers. The former have saclike bodies, the latter tube like bodies. Again, some animals have true digestive tracts and others do not. In some forms the body is composed more or less distinctly of a series of segments, while in others there appears to be no segmentation. The bodies of some animals have no noticeable symmetry, while in others the organs are paired on either side of a central plane and are said to possess bilateral symmetry. Still other animals, such as starfishes, have body parts so arranged as to give a radial symmetry. Some animals carry their skeletons as shells around the outside of the body, while others carry their bones embedded in the softer parts. With regard to appendages, some animals have none. In others they are present but not jointed, while in still others they are present and jointed. Again, some animals have notochords sometime during their development; others do not. Because man develops a structure called a notochord in his embryonic stage, and because the lowly sea squirt carries a notochord all his life, taxonomists (classificationists) place man and sea squirt together in the large phylum Chordata along with other mammals and tunicates, and with fishes, frogs, reptiles, and birds.

The science of classification consists of placing plants and animals into their respective pigeonholes according to similarities and dissimilarities. This science is built upon much arbitrary decision on the part of authorities. The facts of classification are easily observable by everyone, and evolutionist and creationist both recognize the same empirical facts here. Where they part company is in the philosophy of classification. Because the man and the sea squirt both have notochords, temporarily or permanently, evolutionists believe they have a closer blood relationship than animals that never have notochords. The creationist believes that all basic types were specially created, hence none are blood-related. Which group is refusing established scientific finds here? Neither, because both recognize and accept the demonstrable facts. They differ only in the interpretation of the facts.

To the believer in special creation it is a strange thing that evolutionists would conclude that because similarities in form and structure may run across many basic types, they could not have been specially created. In a most unjustifiable fashion the evolutionist decides that if special creation occurred, then the Creator would have to do it this way or that way. In the matter of classification, some evolutionists believe that if basic types are specially created they must possess no characters in common.

Other evolutionists believe that if types were specially created, then they would resemble one another equally so that no classification would be possible. The creationist does not decide in his own wisdom how God would have to do it. Certainly the Creator could have used common characters in several basic types if He so wished,

It will be observed that while we have been discussing the situation in classification we have also discussed the evidence from comparative anatomy. This is so because classification is based on form and structure. There is nothing coercive in comparative anatomy. Among humans we do observe that, as a rule, individuals that are more closely related look more alike than those that are at best distantly related. Brothers and sisters look more alike than people generally because they spring from the same ancestral cluster of genes. Identical twins look still more alike than brothers and sisters generally do, because they have developed from the same fertilized egg and thus have identical heredity. From such observations it is only natural to assume that similar structures indicate blood relationship. The basic question involved is, How far dare we go in this assumption and keep within the limits of demonstrable fact?

It is not difficult to discover that the forelimbs of all limbed vertebrates have the same three bones—humerus, radius, and ulna. This is empirical evidence, but evidence for what? It is merely a demonstration of the fact that all limbed vertebrates man, birds, whales, bats, horses, dogs, et cetera—have the same three bones in the forelimb. Here the coercive evidence ends. Evolutionists begin at this point and speculate that such agreement in bones can mean only descent from a common ancestor. And unfortunately they have commonly allowed themselves to think that the discovery of this identity of bones constitutes a completely established scientific fact proving evolution. Alas, it is merely subjective evidence and is just as reasonably received by the special creationist as specific proof that Genesis is correct, disclosing one Creator with a master plan. The whole gamut of evidence from comparative anatomy is of this same subjective, that is, persuasive, quality. It persuades the student to accept this or that doctrine according to where he decides to place his faith.

In other words, evidence of this sort is of no value in deciding the matter of origins. Evolutionists have much to say about the phylogenetic tree, a diagram by which they think to show the progression from simple to more complex and specialized forms. The most important point to remember about this tree is that it is based not on coercive evidence but on mere interpretation of coercive evidence. Because no coercive evidence exists that new basic types have arisen since Creation week, the whole phylogenetic tree is pure speculation. In our present study it is very important to bear in mind that the only portions of this tree that actually exist are the smaller branches. The main trunk and larger branches are mere speculation, in which it is assumed that stem ancestors existed, which gave rise to forms we find among the fossils and alive on the earth today. Every evolutionist phylogenetic tree is a monument to the great faith of the evolutionist in his hypothesis. Certainly no greater faith is required to believe that God produced the basic types by special creation, and in holding to that belief the student does not refuse even one item of “completely established scientific findings.”

Some evolutionists flee in mock horror here from the doctrine of special creation because they say God would not deceive us by producing basic types by special creation and making them in such a way as to have an appearance of the complex having developed from the simple. One reason why God gave us the Guidebook was to leave us in no doubt that, however they might appear, all basic types of plants and animals were specially created.

The subject of vestigial structures is always an intriguing one. We recall that one of the processes of variation is mutation, and mutation has been known to reduce the wings of vinegar flies to small rudimentary structures, mere vestigial organs. Such observations have led scientists to assume that many structures about the bodies of animals have no modern function, and indicate a time in the past when these structures were functional organs in the ancestry. In order to be truly vestigial, an organ must first be proved to have no function either in the embryo or in the adult. This eliminates the major part of structures formerly listed as vestigial, among which appeared organs as important as the adrenals, the thyroid, and the pituitary.

Without doubt, some structures listed as vestigial are truly vestigial. An example is the rudimentary wing in the fruit fly just cited. The atrophied eyestalk of blind cave fishes is another example

of a truly vestigial structure. One wonders whether the nonviable pollen of dandelions may not indicate a state when the seeds of this plant developed, not parthenogenetically as now, but only when fertilized by a male cell. But the whole suggestion of vestigial structures possessing any phylogenetic significance is brought into question when we recall that they are quite entirely absent in plants. If plants have evolved from simpler forms, why should they not display the same sort of vestigial forget-me-nots that the animals are supposed to show?

It is an interesting diversion to take any organism and imagine that it possessed functional organs for each supposed vestigial structure. In man, for instance, it would mean such functional organs as a caecum, efficient wisdom teeth, ears that flapped, and a tail. The point is soon gotten that even if each organism were to substitute really functional organs for those which are assumed to be vestigial, it would not thereby become a new basic type of animal. Suffice it here to summarize that there is nothing in the realm of vestigial structures that even approaches a "completely established scientific finding" that demonstrates evolution. The relevant empirical facts are even more reasonably explained from the point of view of special creation followed by limited variation.

The bushes in the field of comparative physiology and bio chemistry have been quite thoroughly beaten by evolutionists in an endeavor to find some empirical proof for the blood relation ship of animals. But here again the investigator can discover persuasive evidence only. The evolutionist assumes that the reason for similarity in physiological processes and in chemical processes is that the organisms displaying these likeness have descended from the same ancestor.

However, he who is acquainted with Genesis knows that the portrayal there is of a single building material, the dust of the ground having been used in the formation of all animals. Furthermore, essentially the same nutrient materials constitute the diet of all animals, a diet consisting of proteins, carbohydrates, fats, minerals, vitamins, and water. It would be a truly unnatural thing if animals originating from the same material and feeding upon the same basic foodstuffs should manifest widely different chemical substances in their protoplasm. Broad chemical similarities are to be expected in animals, and yet, at the same time the special creation of each basic type after its kind would suggest closer similarities among members of the same basic type.

In this broad area of comparative physiology and biochemistry one searches in vain for empirical evidence for evolution of basic types. Consistently, it is persuasive only, and the searcher chalks it up for his side because with him who strongly believes, the subjective becomes empirical-to him: Is it plausible from my point of view? Then it constitutes empirical evidence for my doctrine." Open-minded investigator, where art thou?

The German biologist, Ernst Haeckel, set forth the doctrine known as the recapitulation theory, which declared that the embryo in developing from the fertilized egg to a stage resembling the adult repeated the evolutionary history of its ancestors. At first this seemed a plausible idea and was widely used to support the hypothesis of evolution-first a one-celled form, then a blastula, then a gastrula, then a fishlike form, then specialization into its specific kind. However, because of its frequent inconsistencies and because it often proved too much, modern embryologists have largely forsaken the idea. Some die-hard evolutionists still beseech their colleagues not to throw out the baby with the bath water, thinking that there is still some evidence for evolution in embryology. The present practice, however, is more and more to believe that the development in the embryo is better explained on the basis of increasing complexity and developing needs instead of mere gestures in the direction of assumed early ancestors.

For example, the student, in developing his theory, must decide whether the early structures in the throat region, commonly called "gill arches," are a way the embryo has of saluting his many-great grandsire, who assumedly was a fish, or are these throat structures merely the early stages of the Eustachian tube, the palatine tonsils, the thymus, the parathyroids, the hyoid bone, the laryngeal cartilages, and other such structures that develop from these "gill arches"? Of necessity, organisms that begin with one-celled fertilized eggs and develop directly into adults that have bodies with elongated axes that carry a head at one extremity and more or less of a tail at the other, and which have two pairs of appendages, will all look quite alike during the earlier stages of development. Very obviously all the "proofs" for evolution from embryology are a far cry from "completely established scientific findings." To the open mind every item cries, "Subjective only!"

It is generally claimed by evolutionists that the best proofs for evolution are to be found among the fossils. According to the doctrine of uniformitarianism the fossils constitute a record of the plants and animals that lived through past millions of years. The man on the street generally thinks that fossil forms are situated in the rock layers in any one place in just the right sequence to indicate evolution. For instance,

he thinks that where fossil horses are found the tiny Eobippus would appear at the lowest horse level, and then in successively higher layers would occur progressively larger horses, Miohippus, Merychippus, and lastly and uppermost Equus, the largest of the horses.

The actual fact here is that in not even one place can this order be found in the rocks. Two or even three horses may occur in the same formations, as in the Barstow beds in southern California and in the John Day beds in eastern Oregon, but which one supposedly evolved before the other is purely an arbitrary decision based on the preconception that the simple appeared before the more complex or more specialized. It is quite persuasive for evolution to see a museum exhibit in which the horses are arranged in what would appear to be an evolutionist order. But this succession is entirely man-made and has been assembled from several localities. It does not prove evolution, but rather springs from the undemonstrable hypothesis of progression.

It is extremely significant that the best example of supposed evolution that evolutionists can produce from paleontology is a series of ammonites of the genus *Kosmoceras*, which are found in fine-grained sediments near Peterborough, England. The open minded student here sees merely ammonites from lowest layer to highest layer. There has been no production of a new basic type. The whole series of smaller at the bottom to larger at the top could have been living at one time and could have become covered in the sediments, smaller to larger, according to their ecological distribution, or according to the sorting action of moving water, or both.

It is interesting to find both evolutionist and creationist paleontologists rejoicing over the opinion that the order of the fossils in the rocks presents strong subjective evidence for the truth of their respective doctrines. Because simpler animals generally occur in the lower rock layers, and more complex animals in the upper layers, evolutionists conclude that animals evolved from simple to complex. Creationists who accept a universal Noachian Flood find in the general order of simple to complex a verification of the Genesis story of the great Flood. Genesis 7 tells us that for at least six weeks the Flood waters were increasing in height. During this time, although the waters rose slowly, they are described in verses 18-20 as not only *gabar* ("prevailing") but also *gabar me'od meod* ("prevailing exceedingly").

Under this terrific invasion of agitated water over the land it would be most unnatural to expect a huge dinosaur to wait near the habitat where antediluvian trilobites and brachiopods were living and permit himself to be covered under the Flood sediments with these feeble creatures. Every land animal would do his utmost to retreat up the slopes in an effort to escape the rising water level. The natural result of this violent staging would be a burial of land animals in the very order of simple to complex in which we find them today. The fossil record that evolutionists hail as the best evidence that can be found for their hypothesis is actually in beautiful harmony with the Genesis description of the destruction of the outer several miles of the earth's crust. Certainly, to explain the first few vertical miles of our Earth's surface today on the basis of Noah's Flood involves no rejection of any completely established scientific findings. It is possible that, owing to the over-all limitation of space for this discussion, we should step over any reference to the evidence from geographical distribution that evolutionists claim supports their doctrine. Briefly we might say that evolutionists claim that peculiarities of the animals of islands can be understood only from the point of view of progressive development, and that absence of animals from certain areas and the limitation of forms to small areas prove evolution.

Evolutionists seem repeatedly to forget that Genesis 6-8 portrays a destruction of all land forms of animals except those preserved in the ark. These preserved forms debarked in Asia Minor (Genesis 8:4), and from that point spread abroad through successive generations. In fact, they are still actively migrating. The facts are that the problems of animal distribution are quite identical for evolutionists and creationists. Both doctrines demand land bridges in many places where straits now exist, and the extinction of many animals in many areas where they once lived. One illustration of this extinction is found in the present absence of marsupial forms on the land areas between Australia and Asia Minor. The Genesis portrayal of redistribution of animals from the Near East in conjunction with the amazing powers of variation and adaptation, all within well-defined limits, presents a picture of geographical distribution of animals that establishes complete harmony between the Bible and the known facts of distribution.

It will be well worth the effort for the student who is so inclined, to study into all these areas from which the evolutionist marshals his evidence for appearance of new basic types through millions of years. As we see the subjective nature of each item we find ourselves puzzling over the dogmatic statements of Dobzhansky and Tax quoted at the beginning of this chapter. No one can doubt the sincerity of these scientists, but they are typical of all evolutionists today. Every item of evidence that they feel is so compelling for evolution can be as reasonably and logically, and possibly more satisfactorily, explained

from the point of view of special creation.

If it were not so serious it would be amusing to see the close similarity between the present setting of the stage and the situation between science and the church during the Middle Ages. Today scientists generally decry that age of authority in which the church maintained a strangle hold upon even the thoughts of men. The great astronomers Hipparchus and Claudius Ptolemy taught a geocentric solar system in which the sun moved around the earth. This scientific doctrine was accepted by the church and constituted a portion of the science dogma of the Catholics of that time. Both the scientists and the church authorities were very sincere in their opinion that the earth stood still and the sun circled it. However, as is the case for the modern evidences for origins, the evidences for a geocentric solar system were subjective only. But so certain were the church authorities that Ptolemy with his epicycles had set forth coercive (empirical) evidence, they felt justified in calling Galileo to account for his heresy of suggesting that the earth moved around the sun. Galileo was compelled to go to Rome and recant, and he was kept closely under the eyes of the Vatican for the few remaining years of his life, so he would not father any more such “rank heresy.”

The comparison with our day is striking because now, in our age of exaggerated scientism, we also live in an age of worship of authority. At this particular moment the church is no longer in authority, but science is. The popular churches follow obediently along on the coattails of science, sprinkling holy water on just about any opinion of the moment that science may come up with. Science is now enthralled with the obsession of evolution, a preoccupation that causes men to resist almost violently the conception of a special creation in the image of God, in favor of a blood relationship with beasts. The evidences are no more coercive than the epicycles of Ptolemy, but modern scientists are just as positive their interpretation is correct as were the churchmen, unsupported from the Bible and dependent in their opinion upon the interpretation of Hipparchus and Ptolemy, when they compelled Galileo to recant and goose-step with them in their errors.

The church of that day was very sure that their current dogma was for the good of mankind. The scientists of our day are likewise very sure that it is for the general good that we all believe in evolution. This is clear in Tax's assertion quoted previously, in which he says that in our schools the teaching of evolution as an alternative explanation “must now come to an end,” and we must recognize, says he, that evolution is a “demonstrated empirical fact.” Why? “We cannot deal with the difficult problems of the world unless our education takes account of demonstrated empirical fact.” In Galileo's day the power in authority attempted to crush the minority opinion, an opinion now known to be the truth. Is it not possible that in our day man would employ similar ruthless tactics to crush the idea of special creation if only he had the power to do it? And again it would be a case where pertinent evidence was as completely subjective as Ptolemy's epicycles.

The facts involved here are clear enough, but they demonstrate neither evolution nor special creation. Being persuasive in quality, they can be bent this way or that, depending upon what the student wishes to prove. This situation in nature with regard to origin of living forms leaves assumedly autonomous man in a quandary. Did things evolve or were they specially created? To answer that extremely important question is one of the reasons God gave the Bible to man. In the first two chapters of this Guidebook, in words that are crystal clear, man learns that he is not blood-related with the beasts, but instead was created from the dust (Genesis 2:7); in the image of God (chapter 1:26, 27); the son of God (Luke 3:38)

## **AN ORIGIN WITH PROMISE**

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IN THE preceding chapter we have described briefly what probably constitutes one of the most amazing developments in the modern scientific world. Our age is characterized by the much-heralded scientific method, a method that requires that the worker approach the specific problems of his research with an open mind. Ideally, this method of approach to the problem of origin of living things would mean that no scientist would do research in order to prove evolution or in order to prove special creation. Every angle and facet would be studied critically to see whether it were really coercive for this or that hypothesis, or again merely subjective.

However, those who study the generalizations on research done by evolutionists know that these devotees are not doing open-minded study of pertinent problems. Fixed in the mind of each researcher is a strong religious faith in the truth of evolution. Because evolution of new basic types is not now observed, no coercive proof is available for it. This means that the evidence is all circumstantial, subjective, or

persuasive, whatever one chooses to call it, and consistently evolutionist workers bend their interpretations in the direction of evolution. This makes the great mass of research that is being done in the area of origins utterly worthless from the standpoint of whether it indicates evolution or special creation. These workers are merely special pleaders trying most sincerely to convert the general public to their own belief about origins.

This is the more strange because these are the very men who declare that those who believe in special creation are not true scientists, because when they study the problem of origins they have preconceived notions in their heads. Where is a Solomon to distinguish which is the pot and which is the kettle here? The difference between evolutionist and creationist workers is that the latter admittedly build their philosophy upon the special creation described in Genesis, and study the subject from the point of view of created basic types. The former profess to study origins with open minds, but how hardly can one be found among a thousand workers? In our day evolutionists are a closely inbred group, and it appears obvious that by this time they have lost the ability to distinguish between what is a completely established scientific finding and what is merely an interpretation of an established finding.

The man or the woman today who cares and is really concerned to know how life began must use caution not to be carried away by unjustified assertions from scientists who they think constitute an authoritative source on this point. Evolution is not a demonstrated fact, simply because there is not one coercive item of laboratory proof for it. Subjective items, yes, by the thousands, but these are also compatible with the doctrine of special creation.

The sincere student of origins must recognize that neither evolution nor special creation can be demonstrated. They obviously are not continuing processes, else we could demonstrate one or the other. Variation is everywhere manifest today, but variation is not evolution. In order for evolution to occur, new basic types must appear. A hundred years of careful study of variation has revealed that it can do no more than erect new breeds or races or clusters within a basic type already on hand.

As we recognize that laboratory science is unable to prove whether things evolved or were specially created, we realize that the acceptance of the doctrine of evolution or the doctrine of special creation is purely an act of faith. We will pass by the doctrine of the atheist as being entirely too unreasonable and illogical to demand pause. Everywhere about us we see the operation of cause and effect. Effects are usually quite obvious. Our universe is filled with them. Our experience tells us that these effects require a cause. Our experience tells that substance does not appear from nothing, neither do natural forces originate themselves. To be wise and reasonable we must recognize that all these natural things require a supernatural Originator and Maintainer. In order to explain the running of our automobile we do not have to invoke the supernatural, because we can explain the transformation of energy into motion in perfectly natural ways. But for the origin of matter and of natural forces, and of living substance, and of how basic types of living things came into being, we find it necessary to recognize an omniscient, omnipotent, omnipresent God.

This God is the one who speaks to us through the thoughts of the Bible. One of the most wonderful doctrines of this Book is that which proclaims to us that God is a God of love. In Jeremiah 31:3 He tells us, "I have loved thee with an everlasting love: therefore with loving kindness have I drawn thee." In Genesis 1:11, 12, 20-25 in the account of the creation of plants and animals, and again in verse 31 after man was created, it is stated that the resulting product was "good" and very good."

In the portrayal in Genesis 1 and 2 we see all basic kinds or types of living things created in six 24-hour days. Nowhere in this account or in the rest of the Bible do we find anything that even constitutes a suggestion that modern basic types had their origin through a slow, progressive development from simple to complex. In Genesis 1:11, 12 we see every manner of plant from the most lowly to the giant of the forest appearing suddenly from the earth in one 24-hour day. In verses 20 and 21 we see "every living creature that moves" in the waters, from one-celled forms to the giant sea monsters, appearing on the fifth day. In verses 24-27 we find that in one day not only did every land animal, largest as well as smallest, appear but also man, the vicegerent of God on the earth.

Not the slightest excuse is given for imagining that these days were longer than twenty-four hours. There is only one length of day that can be marked off by evening and morning. Probably the most helpful item in learning what length of day is meant is found in the adjectives "first," "second," "third," et cetera. Throughout the Hebrew part of our Bible, the Old Testament, wherever an ordinal number such as "first," "seventh," "tenth," et cetera, is used as an adjective, a 24-hour day is meant. In Exodus 20:11 we are told that six days were used in the work of Creation, and the Israelites were left in no doubt that those were 24-hour days. If the days of Creation week are not taken as 24-hour days one must do great violence to the

simple, clear, precise wording of the chapter.

Throughout the Bible its authors accept the literal story of Creation in Genesis as pure history. The Son of God accepted it as such. In speaking of the origin of man He said, "Have you not read, that he which made them at the beginning made them male and female?" (Matthew 19:4). Paul not only accepted the general fact of the origin of man by special creation but he accepted the order of Creation in detail. We read in 1 Corinthians 11:8, "For the man is not of the woman; but the woman of the man," and again in 1 Timothy 2:13, "For Adam was first formed, then Eve." In Hebrews 4:3 Paul tells us that "the works were finished from the foundation of the world."

UP until 1859, when Origin of Species first appeared, there had been no excuse to doubt the literal interpretation of Genesis 1. But then appeared irreverent men who had no respect for God's Word. Peter's description applies here when he says, "For this they willingly are ignorant of, that by the word of God the heavens were of old, and the earth standing out of the water and in the water" (2 Peter 3:5). The lead taken by these profane men was quickly followed by biologists who were intrigued by the fanciful picture of unlimited progress and by the suggestion that the appearance of modern basic types could be explained by completely natural processes, which the doctrine of evolution portrayed.

The tragedy of this situation lies in the fact that, strangely, the majority of scientists accepted this doctrine of progression even though not one item of coercive evidence could be found in its favor. Then having built up a very plausible story and involving most scientists in it, these despisers of God's Word presented so authoritative a front as to deceive most of the popular churches into concluding that Genesis did not mean what it really said. These churchmen began to describe the Creation account of Genesis as poetry, allegory, fable, and myth, and turning their backs upon its crystal-clear story, began to fix up fantastic tales of how God had really created man by evolving him upward through the beasts.

The student who understands the nature of proofs for evolution and who has faith in the inspiration of Genesis marvels in dismay how so many intelligent people could permit themselves to be led so far astray not only from Bible truth but also from the facts of natural science. We find the explanation in Ephesians 6:12: "For we wrestle not against flesh and blood, but against principalities, against powers, against the rulers of the darkness of this world, against spiritual wickedness in high places."

The Bible makes it clear that in order to reveal His love to man, God created a perfect world outfitted to make man completely happy, one in which each plant and animal was specially created and fitted into its complex environmental niche. The completed creation constituted a system in which no death of animals occurred. Through the warp of plant life was woven the beautiful woof of animal life where all kinds existed harmoniously. It was a peaceful creation produced by a God of love, a creation in which the created forms neither hurt nor destroyed. "It was very good" (Genesis 1:31).

The Bible also makes it clear that into this perfect creation stepped the destroyer, a being with an imagined case against the great Creator, which could be proved false only by permitting this being, formerly Lucifer, now Satan, to demonstrate what he could do. Our earth became the scene of a controversy between Christ and Satan in the natural world. It immediately began to be obvious to the universe that Satan's claim to an ability to run things on this earth better than the Creator, was false, and this inability has just about reached its complete demonstration before the entire universe.

Satan's great hatred against Christ, the Creator, manifests itself in the destruction and derangement of much that was originally beautifully ordered and harmonious. Through manipulation of natural processes he has brought in the harsh order of bloody fang and claw. Where the original creation was completely harmonious, with no order of survival in which the strongest and most cruel won, we now live in a world where might makes right. This temporary reign of hate with its law of tooth and claw has very nearly stamped out the delicate, the refined, the lovely, and the fair. These degenerations are the work of a god of hate, and are a wide departure from the perfection and harmony established here originally by the God of love.

As the evolutionist has studied the present picture, deliberately refusing any assistance from God's Guidebook for man, he has assumed that this system of natural selection with survival of the fittest has always existed and with processes of variation has brought about the erection of the basic types. The popular churchmen of our day attempt to harmonize such an origin with the Bible, but the result is a most inaccurate, base, hybrid doctrine. The upward development, by the Creator, of man through the beasts is diametrically opposed to the scriptural representation of a God of love. Evolution presents a sanguine, ruthless struggle for existence from the very beginning, where there is much waste of living substance, and many false starts and blind alleys. At its very best it is a travesty upon the perfect work of an all-wise Creator. The inefficiency and cruelty of evolution is as far from truth as the east is from the west. It is

utterly incongruous with the Biblical portrayal of origins. And the tragic note in this is that this false doctrine of evolution has been embraced by most Christians of our day because they refuse God's clear Word and substitute in its place a story without one item of coercive evidence to support it. Why do they do this? They do this simply because they choose to believe man rather than God.

When man gives heed to the Guidebook he finds that God's creation was perfect and completely harmonious. By man's refusal to follow the advice of his Creator and through his contrary determination to follow a course of action exactly opposite to that suggested to him by his Maker, the god of destruction gained entrance into our world. The terrible result has been so complete a disfigurement of nature as to place it beyond the power of man, unassisted, to discover the truth about it. That nature all too often shows the work of a god of hate goes without argument. Unless a person is a student of God's Word and learns the facts about the present controversy he may become confused and at times even doubt the existence of a God of love. God in His foreknowledge foresaw the development of sin and the increasing need of man for a Guidebook. The blame for a failure to be informed on these basic truths now lies entirely at the door of him who refuses the Bible.

The Word of God knows but one origin for living things. They appeared by special creation in the six 24-hour days of Creation week. Creation was a perfect work-there was nothing of trial and error, chance, or competition, with a survival of the fittest. Every organism fitted harmoniously into the over-all picture so that the web of life, displaying no bloodstains, was marvelously intricate and beautiful to behold, and worthy of its omniscient, omnipotent Author.

Man was formed of common material with the beasts, but he was distinct from them, sharing no common blood. He enjoyed the significant distinction of being made in the image of God, a son of God. The Word of God portrays a glorious future for man because he was created a son in God's image and is thus a member of the household of God. We can look forward with every assurance that in the near future nature will be clean from all disharmony and every defilement of sin. The beautiful accord of the original Eden will be restored, and man will continue to enjoy soul-satisfying fulfillment through the ceaseless reaches of eternity.

### **Creationist Internet Resources**

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