

MODERN SCIENCE AND SCRIPTURE

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ABSTRACT

The purpose of this paper is to demonstrate validity for the Biblical Creation Model. In the book of Genesis is recorded the events of creation, the fall of man, and the great deluge. Is it possible for a person to take these events as literal historical happenings?

INTRODUCTION

An article appeared in a popular magazine a number of years ago entitled, "Can A Scientist Believe in God." In this article the scientist made some very interesting statements. He said that we can believe in God but not to believe in a literal interpretation of the scriptures for there are many errors. The miracles recorded in the scripture are not to be taken seriously as they are nothing more than poetical exaggeration. He then makes the statement that if one does believe in the scriptures that we cannot live together in this modern scientific, enlightened society.

As a scientist, I was familiar with such statements concerning the scripture and proceeded to investigate the claims of inaccuracies in the scripture.

The scripture in a very straight forward manner claims to be written by the inspiration of God. (II Timothy 3:15-17 and II Peter 1:21 teach the above doctrine.) Are these verses to be taken literally?

My research has revealed examples where scriptures are actually in harmony with science. In fact, I discovered that the scriptures had anticipated the discoveries of modern science centuries before the fact.

SCIENCE AND SCRIPTURE

Consider the word "kind" used in the first chapter of Genesis to the creation of living things. The creation model proposes the sudden and complete creation of living organisms. Genesis describes the creation of living things each after his "kind." The creation model has its basis in the scripture and in no other book or account. Can we take the Genesis account literally in light of intense opposition from non-creationists?

What does the Genesis account tell us about the origin of living things? Genesis 1:11-13, 20-28, 31, explicitly explains that on days three, five, and six of creation week the Creator populated the earth with all of the basic kinds of plants and animals. At His spoken command, these organisms came into being from the raw materials of the earth. There was no blood relationship between the basic types, merely a pattern of unity within diversity resulting from the master plan of the creator. The expression that is so often repeated—"after his kind" indicates that the Creator had a master plan. Complex forms of plants and animals were spoken into existence suddenly, fully developed, and with the appearance of age. The creation model predicts that one should find in the fossil record the sudden appearance of complex, fully developed forms of life. This is what one finds existing in the fossil record.

The ubiquitous absence of transitional forms of life which is predicted by the evolution model has led to an alternative mechanism for evolution. Punctuated equilibria was developed to explain this lack of transitional forms.

The scriptural account makes it clear that all the basic types of plants and animals were created by the end of the creation week and that the Creator had then finished his work of creation. Thus, the principle of conservation was established.

Does the Genesis "kind" have any validity in the light of what we know from the science of genetics? In an attempt to understand the problem, it would be helpful to review a little history.

History teaches that there existed two prevailing opinions concerning the interpretation of the Genesis kind:

1. The first opinion prevailed during the Middle Ages from about 400 A.D. to 1400 A.D. which was a very narrow view of the Genesis kind. It stated that the individuals of a kind are mass produced like pennies from a mint. This view became known as "fixity of the species." The theological centers of the world held to this view even during the time of Darwin. In fact, Darwin was taught this view when he studied in the Theology Department of the University of Cambridge. It was also taught that all forms of plants and animals had been created and set down in the very pattern of geographical distribution in which we find them today.
2. The second opinion dealt with the degree of fixity within the kinds indicated by the statement in the Genesis account. Scripture does not exclude the possibility of variation within the "kind" or state that plants and animals were created in their present details and set down in the geographical areas where we find them today. Therefore, when some students observed nature and found migration over the earth accompanied with variation they concluded that Darwin was correct.

These were two prevalent thoughts concerning the interpretation of the Genesis "kind." However, one must realize that these two ideas were formulated before the founding of the science of genetics.

What we have in these two extreme views is a rigid scheme of no change accompanied by another of unlimited change. Scripture teaches neither of these views. What Darwin failed to observe was that variation is not without limits and is definitely limited to the basic kind.

A study of this word "kind" in Genesis reveals some very interesting results. The Hebrew word for kind is "min." When I researched the root meaning of "min" I was startled to find that it meant "to portion out" or "to divide into parts." What better scientific meaning could there be to kind! To portion out would mean that in the original kind there was a limited amount of genetic potential that would produce the variation from the kind. A concept that is compatible with what we presently know from genetics! Remember that this word "min" was used over 3000 years ago to describe the concept of the kind. Where did Moses obtain this information if the basic knowledge was not available until the beginning of the twentieth century?

Recently Lane Lester and Ray Bohlin published a book entitled, "The Natural Limits to Biological Change." They introduce the term **prototype** to aid in properly understanding the concept of a kind and to eliminate any prejudice in the use of the word kind.

As an example, the St. Bernard and the Pekingese breeds of dogs have a similar morphology or body shape. Even though they differ in size they have the dog appearance. This is what is meant by the term morphology. These two breeds do not interbreed because of obvious problems, but still would be the progeny of the genetic potential that was available in the original dog kind.

The only significant work on the scientific nature of the kind before the work of Lester and Bohlin was the classic work of Frank L. Marsch in 1947. Marsh introduced the term "**Baramin**" or created kind which is based on the idea that a kind would be embraced by all organisms which could produce a successful zygote even if development proceeded no further. Marsh explains that, through time, damaging mutations and derangements in the physiological apparatus may have reduced some of the original progeny to the zygote level. Add to this such factors as adaptive radiation and geographical isolation as other factors limiting changes to the kind.

As an example, the tiger and the lion are recognized as separate species but would be members of the same prototype or kind. Successful mating was performed in the laboratory to produce a progeny called a **liger**. This is a demonstration of fertility among species that normally do not interbreed.

How did this genetic information (code) which we have previously called the genetic potential come about? I believe we have an interesting case for design in the programmed genetic information. Random chance events through time do not produce order but disorder. The slightest change to an ordered DNA molecule produces disorder and even death to the organism. Then how do we explain the existence of the precise code of the DNA molecule? Communications engineers and computer scientists have shown that information does not and cannot arise spontaneously. It arises as a result of the expenditure of energy and the action of intelligence.

Lester and Bohlin suggest in their discussion of the kind that each organism has its own body of meaningful information and how it operates through the life of the organism is by some operating mechanism that Lester describes as a regulatory mechanism. Differences in the kind may well be the differing regulatory mechanisms in the genetic apparatus of the differing kinds.

Scientific research from the modern science of genetics is shedding new light on the concept of the Genesis kind which is in harmony with the scriptural presentation.

Consider what the scripture says concerning the blood. Our knowledge concerning the physiology of the blood is relatively recent. Leviticus 17:11 states:

"For the life of the flesh is in the blood; and I have given it to you upon the altar to make an atonement for your souls; for it is the blood that maketh an atonement for the soul."

Moses recorded this unique verse around 1450 B.C. when science knew very little about the nature of the blood. In these early times, bloodletting was practiced when a person was ill. The local barber also performed surgery and did most of the bloodletting. In 1799 George Washington became seriously ill. His doctors drained about a cup of blood on three different occasions on the day of his death. The doctors were using the practice of bloodletting as a means of treatment. Many authorities think this practice so weakened George that he wasn't able to fight off the infection which took his life. Remember, it is the blood which performs the vital function of supplying the tissues with oxygen and nutrients as well as combating disease. All of this was not known at the time of Washington's death. Yet the scripture was scientifically accurate thousands of years before man's discovery.

Another important scripture concerning the blood that needs to be considered is, Genesis 17:12, where God is speaking to Abraham:

"And he that is eight days old shall be circumcised among you, every man child in your generation."

Newborn infants sometimes have a tendency to hemorrhage because they have relatively low blood levels of certain coagulation factors which rise quickly during the first few weeks of life. This susceptibility to bleeding is especially severe between the second and fifth days of life.

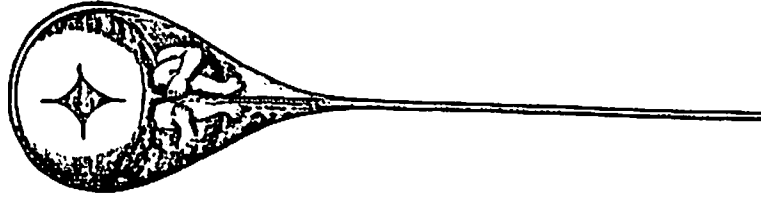
There are two blood clotting factors that are not present at birth but appear within a few days after birth. Prothrombin is one of these blood clotting proteins which is manufactured by the liver. Prothrombin initiates a series of chemical reactions necessary for the ultimate formation of the clot. Studies have shown that prothrombin is at its highest level in the human at the eighth day following birth. This high level immediately falls to a lower level where it remains throughout the life of the individual.

Along with prothrombin, vitamin K is another factor that is important to the formation of a clot. Vitamin K functions primarily in the liver, where it is necessary for the formation of prothrombin. At this early stage in the life of the newborn significant quantities of Vitamin K are produced by a colony of bacteria which normally reside in the colon. These colonies do not begin to show up in the intestine until around the fifth to seventh days following birth.

Based on the preceding information, the best day to perform circumcision is the eighth day. How did Moses know this when he was recording Genesis? Only a supernatural intelligence could have inspired Moses to write such a statement.

Consider Psalms 139:14-16, which contains some interesting truths.

14. "I will raise thee; for I am fearfully and wonderfully made. Marvelous are thy works, and that my soul knoweth right well."



From Nicolaus Hartsoeker, *Essai de Dioptrique*, Paris, 1694

15. "My substance was not hidden from thee, when I was made in secret, and curiously wrought in the lowest part of the earth."

16. "Thine eyes did see my substance, yet being unformed..."

The above caricature represents the theory of pre-formation which was current during the eighteenth century. In the drawing we find a pre-formed individual inside the human sperm completely developed, only in a microscopic state. The view was disproved when the modern microscope came into use. However, long before (1000 B.C.), scripture recorded a completely accurate scientific explanation of the development of the human individual. In verse fifteen of Psalms 139, the word "substance" should be translated "body" which is the meaning of the Hebrew word "ostem." A better translation of this verse would read as follows:

"My body was not hid from thee, when I was made in the protected place and fabricated in the womb."

The significant scientific part is found in verse sixteen. The word "substance" used in this verse is from a different Hebrew word, "golem," which means "unformed mass." This happens to be the present day biological definition of an embryo. How could the psalmist have known about this fact of the early development of the human embryo when the science of that day taught a completely different view?

The creation model has its origin in the scriptures. There are many other versions in historical writings on the subject of origins. Only the scriptures contain accurate information written beyond the science of the day. This is especially evident when you compare them against the science of B.C. and early A.D. times. There is no rational explanation for such accuracy and continuity. In fact, when one reads the secular writings of the period of scriptural revelation, there is no comparison.

Peter Stoner, a former mathematics professor, computed the probability of Christ fulfilling 48 different prophecies of the Old Testament out of the more than 300 listed and arrives at a probability of 1 in 10 to the 157 power. That is 1 with 157 zeroes. Imagine calculating the probability for all 300 prophecies being fulfilled by one person. The laws of probability are proven and trustworthy and in this particular case proves to be a useful tool in demonstrating the accuracy of the scriptures.

Robert Gentry has concluded on the basis of his observations of polonium 210 halos that the earth's rocks solidified in three minutes not over many millennia as demanded by evolution. This kind of evidence gives credence to the days of Genesis as being interpreted as literal days.

Scripture indicates that there was a body of water above the atmosphere. Many of us believe that this might have been a vapor canopy. It is known that cosmic rays react with deuterium, an isotope of hydrogen, in the atmosphere to produce tritium, another isotope of hydrogen. Tritium decays into helium 3. The standard ratio is one part to 6000 parts of hydrogen. What we observe in the atmosphere is greater amounts of helium 3 than can be accounted for, using present day processes. However, if there was a body of water (such as described in the second day of creation) above the atmosphere it would have contained significantly more deuterium. This would lead to a greater production of helium 3. This kind of evidence supports the creation model.

Scientists know of 1100 extinct volcanoes. There is volcanic ash in the antarctic and in the arctic tundra. In fact, it has been recorded that the ash in the arctic tundra is found to depths of hundreds of feet. This kind of evidence would be predicted by the creation model. The volcanic ash would have precipitated the canopy initiating the

Genesis flood. The presence of volcanic ash in polar ice appears to confirm this fact. Another example of science in harmony with the scripture.

The flood described in Genesis is described as a universal flood. The history of mankind is filled with flood traditions. The fossil record abounds with evidence of catastrophic rapid burial. Residual amounts of water have been found in the "D" layer of the ionosphere. All of this indicates support for such a universal deluge described in Genesis.

CONCLUSION

In conclusion, it appears evident from the evidence discussed in this paper that there is scientific support for the creation model as described in Genesis as well as support for the accuracy of the scriptures.

REFERENCES

1. Lester, L. and Bohlin, R., "The Natural Limits to Biological Change," Zondervan, Grand Rapids, Michigan, 1984.
2. Lammerts, W., "Scientific Studies in Special Creation," Ch. 12, Presbyterian and Reformed Publishing Co., 1971.
3. Blick, E., "Correlation of The Bible and Science," Southwest Radio Church, Oklahoma City, Oklahoma, 1976.
4. Hall, J., "Modern Science and Inerrancy," Center for Creation Studies, Liberty University, Lynchburg, Va., 1985.