DISCUSSION No. 14

THE ASTONISHING GENESIS FLOOD Part 1: Introduction

Ariel A. Roth sciencesandscriptures.com

OUTLINE

- 1. The conflict
- 2. Extent of the Genesis Flood
- 3. Flood legends
- 4. The Flood and creation week
- 5. Things can happen rapidly: Catastrophism
- 6. Sediment deposition
- 7. What happened at the Flood?
- 8. Was the ark large enough?
- 9. Conclusions
- 10. Review questions

This discussion is mainly to provide background knowledge for the 2nd and 3rd sections of THE ASTONISHIN GENESIS FLOOD discussions (No. 15, 16) that have the subtitles: Some Evidence and More Evidence.

1. THE CONFLICT ABOUT THE GENESIS FLOOD

The Genesis Flood is the key event that explains the geologic and fossil record in the context of the biblical account of beginnings.

That the worldwide Genesis Flood ever occurred, or that it had much significance, is usually denied by the scientific community.

For instance, textbooks of geology and paleontology that deal with the history of life on earth hardly ever mention the Genesis Flood. It is generally assumed by the scientific community that the geologic layers and life evolved slowly over billions of years. Some catastrophes are now being acknowledged, but not the comprehensive Genesis Flood as the event that laid down the major part of the sedimentary layers which contain most of our visible fossils.

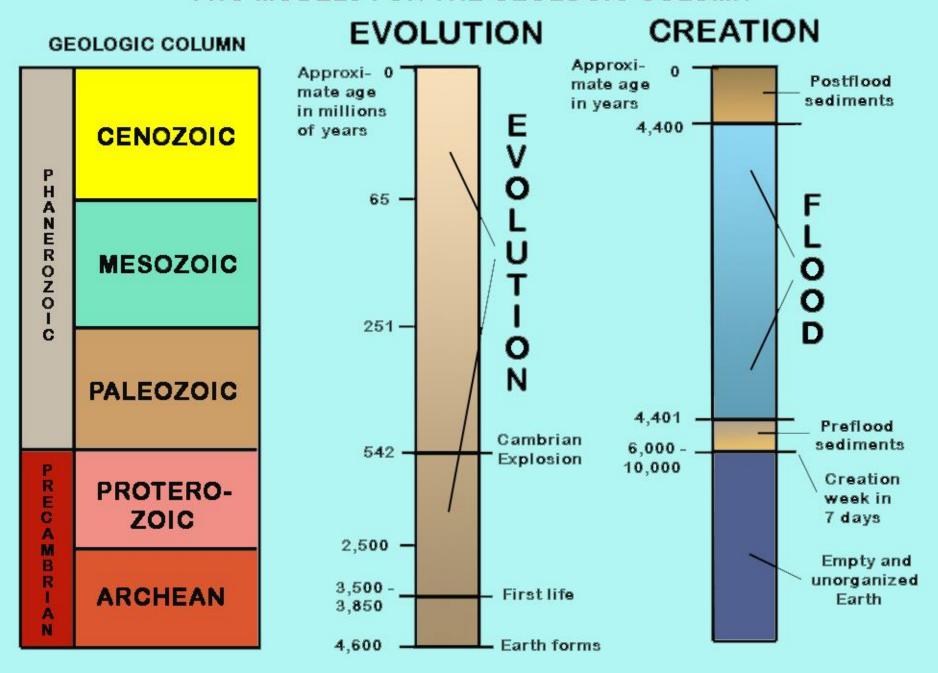
In contrast, the Flood is an important theme of the Bible as an integral part of the early history of the earth. The Flood is described in detail in the first part of the Bible. Three chapters are devoted to describing it, while a little earlier, only two chapters describe the history of creation. So it is an important event.

Too often the early history of the Bible, including creation and the Flood, is considered to be myth, while the rest is taken more seriously. One cannot do that and be consistent, especially because in later parts of the Bible the writers and leaders such as Peter, Paul, Christ and God treat the first part of the Bible, including creation and the Flood, as though it represents actual events and not myth.

Keep in mind that we are dealing with two widely differing models. The evolutionist sees the geologic column as billions of years accommodating the slow gradual evolution of life, while the creationists sees the major part of the geologic column as the result of the rapid Genesis Flood that destroyed a lot of life.

The contrast between the two models we are discussing as they relate to time and the geologic column are reviewed in the next slide.

TWO MODELS FOR THE GEOLOGIC COLUMN



The Bible tells us that eventually after creation humanity became so evil that God had to try and rectify the situation, and He brought on the Genesis Flood. God was sorry that He had created man, and this problem "grieved him at his heart" (Genesis 6:6). He tried to warn humanity and saved those He could in the ark. While some try to suggest that God was less than kind in destroying the wicked, the broader picture suggests that He did it for the future benefit of mankind as a whole, because man had become so wicked.

The next few verses from the Bible give some insights into these circumstances.

Genesis 6:5-8

"And God saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually. And it repented the Lord that he had made man on the earth, and it grieved him at his heart. And the Lord said, I will destroy man whom I have created from the face of the earth; both man, and beast, and the creeping things, and the fowls of the air; for it repenteth me that I have made them. But Noah found grace in the eyes of the Lord."

2. EXTENT OF THE GENESIS FLOOD

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Some suggest that the Genesis Flood was a local event, probably somewhere in the Middle East. If one considers the Flood as a local event, this can help accommodate various long age models since the fossil layers lying elsewhere on the earth need not be laid down rapidly.

However, that is not what the Bible is saying. The verses from the Flood account in Genesis, quoted in the next slide, illustrate how it is very difficult to suggest that the Bible is speaking of a local event. These comments seem to be all inclusive for the earth.

COMMENTS ON THE EXTENT OF THE FLOOD, FROM GENESIS 7:19-23.

- 19. And the waters prevailed exceedingly upon the earth; and all the high hills that were under the whole heaven, were covered.
- 20. Fifteen cubits upward did the waters prevail; and the mountains were covered.
- 21. And all flesh died that moved upon the earth, both of fowl, and of cattle, and of every creeping thing that creepeth upon the earth, and every man.
- 22. All in whose nostrils was the breath of life, of all that was in the dry land died.
- 23. And every living substance was destroyed which was upon the face of the ground, both man, and cattle, and the creeping things, and the fowl of the heaven; and they were destroyed from the earth: and Noah only remained alive and they that were with him in the ark.

2. EXTENT OF THE GENESIS FLOOD

It is not just the Genesis account of the Bible that indicates that the Flood was worldwide. In the New Testament, the apostle Peter (1 Peter 3:20) tells us that "few, that is, eight souls" were saved in the ark. This signifies that the rest of the population at that time perished, and it would seem to take a very widespread event to do that.

3. FLOOD LEGENDS

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One does not need to go to the Bible to find the concept that there has been a Flood. The story of some kind of universal flood (called the deluge) is very common in the folk literature from around the world.

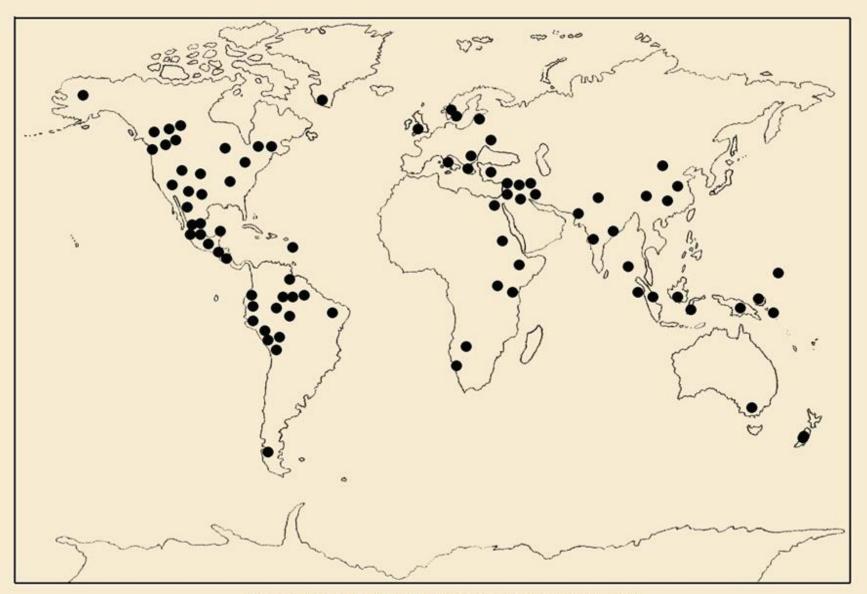
Some 270 flood stories have been recorded by scholars.

While the distribution of these stories is not uniform, it is generally worldwide.

The dots on the next slide representing the location of a number of flood stories confirms their worldwide distribution.

DISTRIBUTION OF SOME FLOOD STORIES

Each dot indicates a local version.



Based on Andree R. 1891. Die Flutsagen ethnographish betrachtet.

3. FLOOD LEGENDS

Could the many world-wide flood stories actually just represent local floods that were interpreted in the past as worldwide, simply because they occurred before mankind had worldwide communication capabilities to determine how extensive floods were?

This does not seem to be the case, because of the extreme dominance of flood stories in the folk literature compared to other calamities. The next slide provides the evidence.

If these perceived worldwide calamities were many localized events over long periods of time we would also expect a more or less even distribution of various other causes over that time. That is not the case. Note that earthquakes, drought, and pestilence do not even appear on the next slide, while floods are six times as common as any other causes.

One could hardly expect that many accounts of major catastrophes would be so selective of the flood theme if they had not been based on an actual worldwide event that affected all of mankind.

CAUSES OF WORLD CALAMITIES IN FOLK-LITERATURE

(Not End of World)

Based on Classification by Stith Thompson 1955 (1989) in Motif-index of Folk-Literature. Bloomington, Indiana: Indiana University Press.

CAUSES	NUMBER OF REFERNCES
Deluge (world flood)	122
Fire	19
Continuous winter	6
Large stones	2
Ogre	1
Earthworm	1
Objects (dead and alive)	1
Sunrise	1

4. THE FLOOD AND CREATION WEEK

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The worldwide Genesis Flood is the event that reconciles the fossil and geologic record of the earth with the six day creation described in the Bible.

In the biblical model, God creates all the various kinds of organisms in six days a few thousand years ago. Man becomes evil over time, and this is followed by the Genesis Flood that buries the life on the earth. Since there was no life before creation week, and there was little time and comparatively little geologic activity both before and after the Genesis Flood, the Flood is the event that buried the animals and plants that became most of the fossils in the geologic column, especially the Phanerozoic part that contains most of the readily visible fossils.

4. THE FLOOD AND CREATION WEEK

There is no other creation model in the Bible, although a few scholars have tried to suggest vague allusions to such. Others propose that since Moses does not mention creation when he discusses the 10 Commandments in Deuteronomy 5, we don't know which version to follow. However, Moses' comments do not at all contradict God's words in Exodus 20 which are more authoritative.

The next slide emphasizes the six day creation concept in Bible texts.

THE TEN COMMANDMENTS

Spoken by God and written by the finger of God. (Exodus 20, 31-34)

"Remember the Sabbath day, to keep it holy....

For in six days the Lord made the heavens and the earth, the sea, and all that is in them, and rested on the seventh day."

It would be a strange kind of God who would create life over millions of years and then ask us to keep the Sabbath holy because he did it all in six days.

THE GENESIS ACCOUNT (Genesis 1-2)

God creates the various forms of life all within six days each with its own evening and morning.

4. THE FLOOD AND CREATION WEEK

Some try and preserve a six day creation week and also the long geologic ages (millions of years) for the fossil layers, by suggesting that creation week occurred millions of years ago. However when you realize that we have very different kinds of organisms at the different levels of the geologic column, this challenges the idea that the geologic layers represent millions of years if God a long time ago created all in six days as He states. We don't find all the main kinds of fossils in the low layers.

For instance, in the next slide of the Grand Canyon, the lower arrow points at a region of trilobite fossils assumed to be well over 500 million years old. The upper arrow points at a region with fossil ferns assumed to be some 300 million years old. You do not find ferns with the trilobites that are assumed to be over 200 million years older. Hence, if there is 200 million years between trilobites and ferns, as usually claimed, there is no way that God created all in six days! The Flood that buried most of the fossils in a single event provides a more reasonable interpretation.



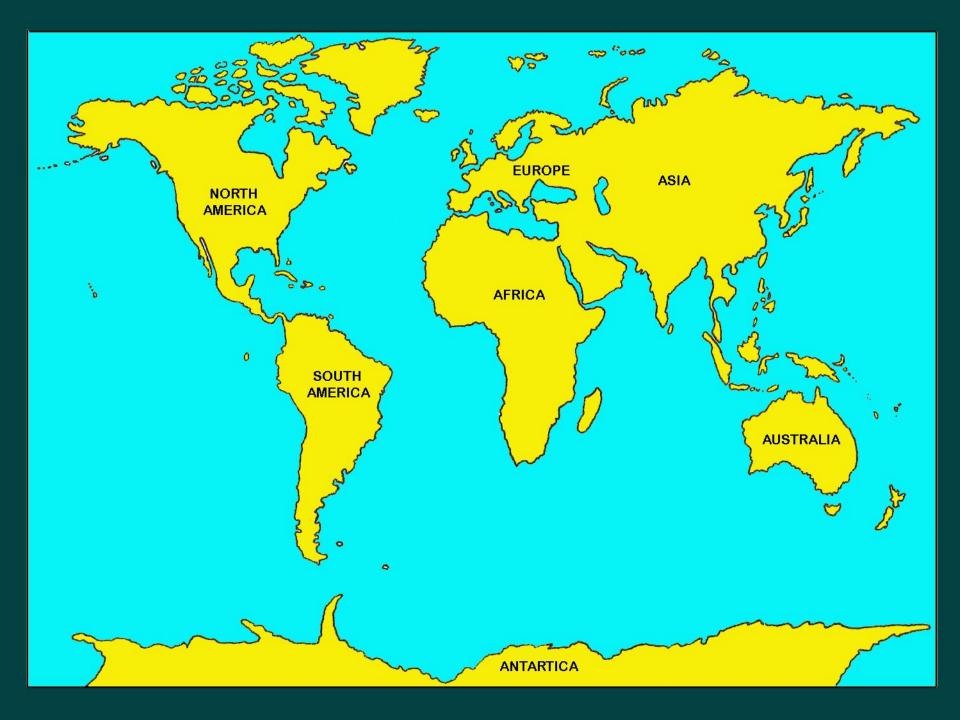
4. THE FLOOD AND CREATION WEEK

In other words, because we have different kinds of fossils at different levels in the geologic column, as soon as you start suggesting millions of years between these levels, there is no way that God created all the various basic kinds of organisms in six days as He states.

In a biblical context, probably the best explanation for the order of the fossils in the geologic column is ecological zonation (EZT) and related factors considered in Discussion. 11 titled "FOSSILS AND CREATION."

A local Genesis Flood, as proposed by some, will not suffice to reconcile the geologic column to a six day creation. The geologic column is well represented, at least in some of its major parts, on all the continents of the earth.

It takes a worldwide Flood, burying fossils over the entire earth, to explain the geologic column in the context of a six day creation. The next slide illustrates that entire earth.



5. THINGS CAN HAPPEN RAPIDLY: CATASTROPHISM

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While on our normal earth geologic changes are quite slow, that is not the case when you have catastrophes. We tend to think that things go very slowly on our normal earth, at least until we experience an earthquake! You would expect a multitude of major catastrophes during the year of the Genesis Flood.

Sediments can be deposited very rapidly. For instance, an underwater turbidity current (to be discussed later) can lay down a 200 meter thick layer of sediment in one locality in a few minutes.

Erosion can at times also be very rapid. The Teton Dam in Idaho that was 100 meters (300 feet) high was eroded down by water activity in less than an hour.

The bed of Kanab Creek in Utah (next illustration) was lowered around 15 meters (50 feet) in 8 hours. Before the flash flood that caused this rapid erosion, there was no gorge; the creek was at about the level of the arrow to the right of the picture.



KANAB CREEK AT KANAB UTAH. The gorge was cut down in eight hours. Before the 1883 flash flood, the creek was at about the level of the red arrow.

5. THINGS CAN HAPPEN RAPIDLY: CATASTROPHISM

For millennia the importance of major catastrophes in changing the crust of the earth has been recognized. That interpretation is called catastrophism. However, more recently during the late 19th and early 20th centuries, geology adopted the view that geological changes happened very slowly over very long periods of time; major catastrophes were not important. That view is called uniformitarianism, and that view eliminated the Genesis Flood from geological interpretations.

However, the data from the rocks themselves, has forced a reversal in geological thinking. It is now recognized that major catastrophes occur, and while the Genesis Flood is not accepted as a fact, catastrophic activity is. Geologists now tend to put a lot of time between the catastrophes they recognize, but many of the newer catastrophic interpretations fit well with the Genesis Flood concept.

The next slide is a quotation acknowledging this basic philosophical change in geological thinking.

Erle Kauffmann, paleontologist, quoted by Roger Lewin. 1983. Extinctions and the history of life. Science 221:935.

"It is a great philosophical breakthrough for geologists to accept catastrophe as a normal part of Earth history."

5. THINGS CAN HAPPEN RAPIDLY: CATASTROPHISM

This great philosophical change is a good example of how certain ideas can dominate in science for a while, then be rejected for a while and then reaccepted. First we had the acceptance of catastrophes as important, then the rejection of this idea for 130 years during part of the last two centuries. During the past half century, we have seen reacceptance of the significance of catastrophes. However, the recent reacceptance of catastrophism did not include the Genesis Flood that was accepted two centuries earlier. However, major catastrophes are now accepted, and this illustrates the fact that once an idea is rejected by the scientific community, this does not mean that it will not be reaccepted later on. Science can re-reverse its interpretations.

The next two slides provide quotations from leading geologists that illustrate further the change back to acceptance of the importance of catastrophes in the last half century. Ager, Derek V. 1973. The nature of the Stratigraphical Record. New York: John Wiley & Sons, p 49-50.

"The hurricane, the flood or the Tsunami may do more in an hour or a day than the ordinary processes of nature have achieved in a thousand years."

"The periodic catastrophic event may have more effect than the vast periods of gradual evolution."

Nummedal, Dag. 1982. Clastics. Geotimes 27(2):23.

"The profound role of major storms throughout geologic history is becoming increasingly recognized."

[Note: The great Genesis Flood of the Bible that lasted for more than a year would be expected to leave a geological imprint of "major storms" as referred to above.]

6. SEDIMENT DEPOSITION

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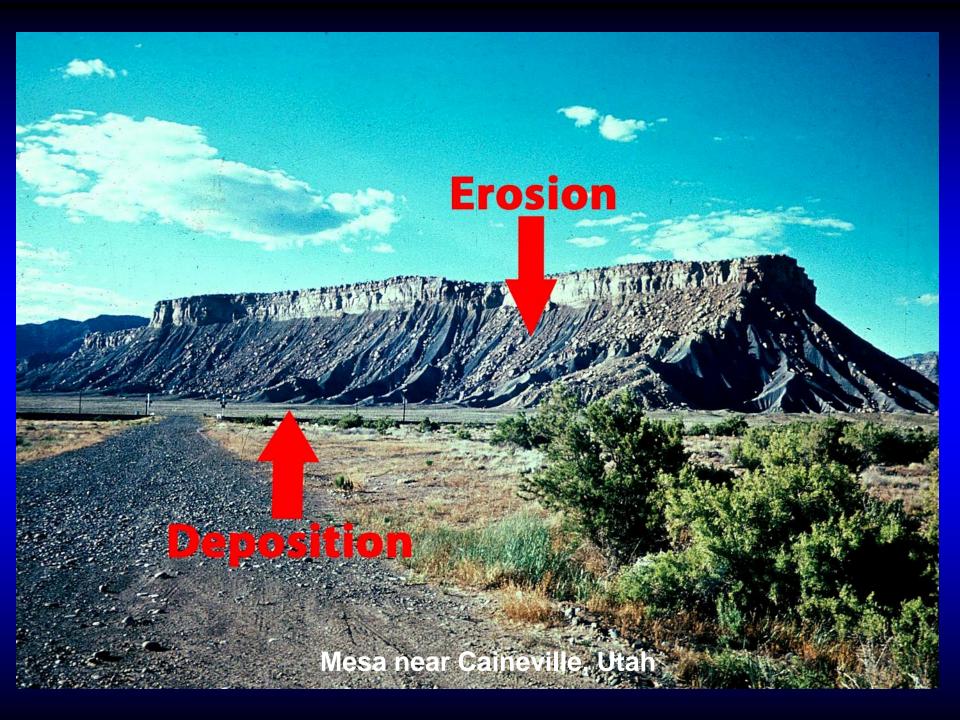
During the Genesis Flood, you would expect a lot of erosion and deposition of sediments (clay, sand, gravel, boulders) by water. The water erodes the sediments from higher places and deposits them in lower places.

It is important to note that sediments are usually laid down by water in horizontal layers. This is occasionally called "the law of original horizontality." There are rare exceptions.

6. SEDIMENT DEPOSITION

Often the horizontal layers deposited by water are later distorted by regional uplift, lowering, or compression, so the layers are no longer horizontal, but are bent, turned on edge, or even rolled over and reversed. Later, erosion sometimes exposes these intriguing deposits and we can study them.

The next slide illustrates erosion of dark layers in a cliff. The soft sediments from the cliff are eroded by rain and then deposited on the flat gray plane at the base of the cliff. This illustrates the law of original horizontality. These new deposits can then become cemented and hard, because of chemical changes or pressure, .



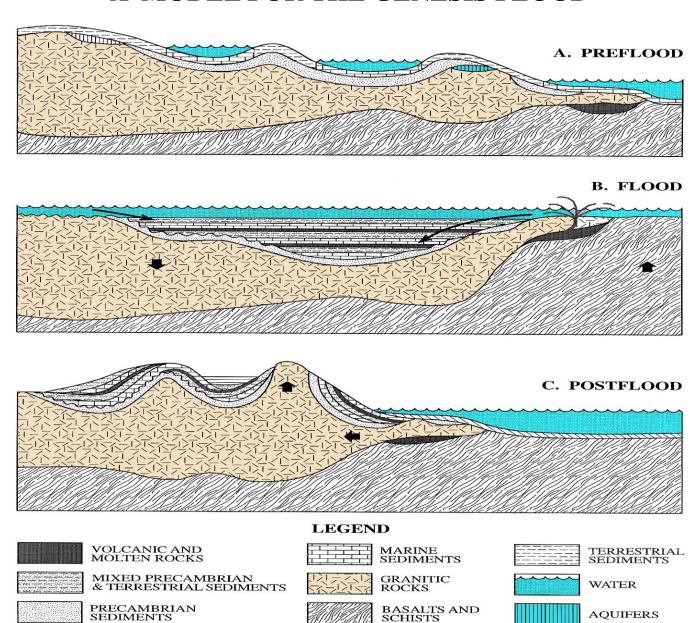
7. WHAT HAPPENED AT THE FLOOD?

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We don't know exactly what happened at the Flood. There are several models. Only a few details are given in the Bible. Read Genesis 6-8 for details. It appears that representative animals came to the ark, and likely, after the flood, they returned to their regions of origin.

Those who believe in creation have considered several geological models of the Flood, but much more study in this challenging area is needed. The next illustration is one model of the Flood. Three stages are considered: before (PREFLOOD), during (FLOOD), and after (POSTFLOOD). The figures show in cross-section part of a continent (left) and part of the ocean (right). In this model it is proposed that during the Flood, the continents sank down. They received sediments eroded from the continents themselves and also sediments from the oceans. The continents were completely covered by water. At the end of the Flood the continents rose up. They would be expected to do this naturally because their lighter (less dense) granite base is expected to rise (literally float up) above the denser basalt and schist. As the continents rose, sediments were compressed laterally, folded and partly eroded by receding Flood waters.

A MODEL FOR THE GENESIS FLOOD



POSTFLOOD MARINE SEDIMENTS

POSTFLOOD TERRESTRIAL

SEDIMENTS

7. WHAT HAPPENED AT THE FLOOD?

On a worldwide scale, the rocks of the earth move about by widespread plastic flow. Some rapid lateral compression of the continents by plate tectonic activity (continental drift) is also suggested in this model. Note that mountains were not very high during the Flood, and it would not take that much water to cover all the continents. If the earth were perfectly smooth, the water in the oceans would cover the entire earth with a layer 2.44 kilometers deep. It is proposed that near the end of the Flood and after, pronounced uplift produced our high mountain ranges. Before that the earth was flatter.

While we don't know many details about the Flood, we do know enough of what happened generally, that we can find significant scientific evidence for such a very unusual event. Keep in mind that there are major differences between the two models that are being compared: a fast one year Flood event in contrast to very slow geologic changes over millions of years.

8. WAS THE ARK LARGE ENOUGH?

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One of the most common questions raised about the Genesis Flood is: How could all the animals fit into Noah's Ark? Two comprehensive studies indicate that because the Ark was so large, there is no problem. The studies are in the books: Whitcomb JC, Morris, HM. 1961. The Genesis Flood, p 10-11, 65-69; Woodmorappe J. 1996. Noah's Ark: A feasibility study. Some details from these studies follow.

- One does not have to envision that every species now living on the earth was in the ark. Many species developed since the Flood as the result of small microevolutionary changes, Hence, closely similar animals like the wolf, dog and coyote may have been represented by just one kind of ancestor on the ark.
- Only land animals like lizards, frogs, dinosaurs, mice, birds and elephants were preserved in the ark. Clams, squids, fish, seals, and whales, etc., survived in the Flood waters; so did plants.

8. WAS THE ARK LARGE ENOUGH?

- The ark was 438 X 73 X 44 feet. This is the equivalent of 522 railroad stock cars, each of which can hold 240 sheep.
- There may have been around 16,000 animals in the ark. The median size of the animals has been estimated as that of a rat.
- Unstacked cages for the animals would require less than half of the floor space on the ark's three decks.
- Food and water would take up only about one quarter of the ark's volume.
- There is little question that the ark could have held a great variety of animals.

9. CONCLUSIONS ABOUTTHE INTRODUCTION TO THE FLOOD

9. CONCLUSIONS

- The conflict is between ideas of slow changes over billions of years versus rapid changes during the catastrophic Genesis Flood.
- The Flood was a "universal" event over the whole earth.
- The abundance of flood legends provides unusual evidence of the biblical Flood.
- The Genesis Flood is the major event that reconciles the geologic layers to the six day creation event described in Genesis and Exodus.

9. CONCLUSIONS

(Continued)

- There has been a recent trend in geological thinking towards rapid catastrophic interpretations.
- One would expect a lot of sediment and fossil transport during the Genesis Flood.
- Noah's Ark was large enough for the terrestrial animals.
- While we do not have very many details of what happened during the Genesis Flood, it was such an unusual and rapid event, as compared to the "scientific" model of slow changes over long geologic ages, that one can test it scientifically (i.e. by examining the data from nature).

10. REVIEW QUESTIONS

(Answers given later below)

10. REVIEW QUESTIONS – 1

(Answers given later below)

- 1. Why is the Genesis Flood important to one's world view of how things came about?
- 2. Why is a local Genesis Flood not a satisfactory explanation of the biblical model of origins?
- 3. Flood stories overwhelmingly dominate the folk-literature dealing with past world catastrophes. Why does it not appear that these flood stories are just many local floods that were then thought to be worldwide?

REVIEW QUESTIONS – 2

(Answers given later below)

- 4. What important lesson can be learned from the history of the catastrophism concept as it has been viewed by the scientific community?
- 5. The Genesis Flood model is sometimes criticized because there is not enough water on the earth to cover high mountains like Mount Everest that is almost 9 kilometers high. What answer can you give for that apparent problem?
- 6. What factors suggest the ark was large enough?

REVIEW QUESTIONS AND ANSWERS - 1

1. Why is the Genesis Flood important to one's world view of how things came about?

The Genesis Flood is the event that reconciles the biblical account of a recent six day creation to the fossil record. If one is going to believe that God created all in six days as He states in the Bible, there seems to be no other way to explain the general sequence of various kinds of fossils found over the world unless they were the result of a six day creation followed by a worldwide Flood as described in the Bible. The integrity of the Bible and of God are challenged if there was no worldwide Flood.

2. Why is a local Genesis Flood not a satisfactory explanation of the biblical model?

The Bible clearly describes a worldwide event. Furthermore, a local flood does not explain the geologic column and its fossils that are represented worldwide. If most of the fossiliferous layers of the earth, which have different kinds of fossils at different levels, were not the result of the Genesis Flood, but were laid down over long geologic ages, this implies that the different kinds of fossil organisms that are found were not crated in six days as the Bible states.

REVIEW QUESTIONS AND ANSWERS - 2

3. Flood stories overwhelmingly dominate the folk-literature dealing with past world catastrophes. Why does it not appear that these flood stories are just many local floods that were then thought to be worldwide?

Flood stories are six times as common as any other causes of world calamities. Such dominance strongly suggests that this must have been a real event. If the perceived worldwide calamities were many localized events, over long periods of time, we would also expect a more even distribution of various other causes of calamities over that time. That is not the case. One comprehensive study does not even mention earthquakes, drought, and pestilence, while flood stories are referenced 122 times.

4. What important lesson can be learned from the history of the catastrophism concept as it has been viewed by the scientific community?

Catastrophism was accepted, rejected for 130 years, and then reaccepted by science. This illustrates that once a concept is thoroughly rejected by the scientific community, this does not mean that it won't be reaccepted.

REVIEW QUESTIONS AND ANSWERS - 3

5. The Genesis Flood model is sometimes criticized because there is not enough water on the earth to cover high mountains like Mount Everest that is almost 9 kilometers high. What answer can you give for that apparent problem?

During the Flood Mount Everest and most mountain ranges were not uplifted yet, so it did not take that much water to cover the earth. If during the Flood the earth had a low relief, as some postulate, there is plenty of water to cover everything. If the earth were perfectly smooth there is enough water in the present oceans to cover it with more than 2 kilometers of water. The marine fossils one finds on Mount Everest suggest that at one time its sediments were at sea or Flood level.

6. What factors suggest the ark was large enough?

Only the original basic kinds of terrestrial animals needed to be preserved. The ark was so large that there was plenty of room for 16,000 animals and their food.

ADDITIONAL REFERENCES

For further discussions by the author (Ariel A. Roth) and many additional references, see the author's books titled:

- 1. ORIGINS: LINKING SCIENCE AND SCRIPTURE. Hagerstown, MD. Review and Herald Publishing Association.
- 2. SCIENCE DISCOVERS GOD: Seven Convincing Lines of Evidence for His Existence. Hagerstown, MD. Autumn House Publishing, an imprint of Review and Herald Publishing Association.
- Additional information is available on the author's Web Page: Sciences and Scriptures. www.sciencesandscriptures.com. Also see many articles published by the author and others in the journal ORIGINS which the author edited for 23 years. For access see the Web Page of the Geoscience Research Institute www.grisda.org.

Highly Recommended URLs are:

Earth History Research Center http://origins.swau.edu

Theological Crossroads www.theox.org

Sean Pitman www.detectingdesign.com

Scientific Theology www.scientifictheology.com

Geoscience Research Institute www.grisda.org

Sciences and Scriptures www.sciencesandscriptures.com

Other Web Pages providing a variety of related answers are: Creation-Evolution Headlines, Creation Ministries International, Institute for Creation Research, and Answers in Genesis.

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