
GREAT FLOODS

FROM PRIMARY SCIENTIFIC HYPOTHESIS TO MYTHS

Hossien Hossieni*

*University of Sulaimani, School of Science, Department of Physics, Sulaimani, Kurdistan Region,
Iraq*

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Abstract

In this article, I will try to explain the Great Flood myths that exist in almost all religions and cultures of the world. These stories exhibit a common theme that the great floods are based on the natural catastrophe theory to explain the emergence of fossils. I think the myths of great floods that are reflected in holy texts of some religions represent a primary scientific theory that indicates the source of the fossils.

Keywords: catastrophe, theory, Noah, fossil, Darwin

1. Introduction

The story of Noah, the ark, and the Flood in Genesis 6-9 is one of the most famous section and passages of the entire Bible. This flood occurred in Mesopotamia and religions such as Judaism, Christianity and Islam have all narrated it in their sacred texts [1]. In this story, the flood covered the entire Earth's surface and all the creatures drowned except a few of them that the Lord had commanded to remain in order to continue life on the planet [2]. Here I hold no judgment of whether the story is, in fact, truth or fiction, as the story undoubtedly has unscientific and illogical arguments. However, this is not the only story about the great floods. There are several stories that express great floods in other regions of the world. Great flood stories place some emphasis on the role of the supernatural and God's intervention in physical laws, even though this is seen as questionable to some [3, 4].

Floods are some of the closest encounters that humans have experienced in terms of natural disasters throughout history. Humanity has always feared this event and tried to build the settlements in areas where there were minimum of floods. It is not unusual for floods to have been reflected in ancient people's myths. There are some interesting commonalities in these flood stories. There are often only a few survivors and in the recollections of the great floods, there are attempts to clarify the origin of the fossils.

*E-mail: hossien.hossieni@univsul.edu.iq

In this article I will try to demonstrate through brief flood stories from different cultures why the great floods myth should be a primary scientific hypothesis for fossils.

2. Great floods in different cultures

In Indonesian mythology, the Earth was found on the head of the huge snake Naga - Padhoha. The snake was tired of the burden one day and shook itself violently, throwing the Earth into the sea. The God Batara Guru erected a mountain in the sea and saved his daughter before the Earth was placed back on the snake. The human race is said to have descended from his daughter [5].

The tribal people of the Andaman Islands, between Bangladesh and Myanmar, violated the commands from their creator God Puluga. He became angry and sent a flood to them in which just two men and two women survived. Since their fire had been taken away and everything perished, the creator God recreated the animals and plants and was eventually tricked into giving them their fire back. He then seemed to have lost interest and gave no further instructions [6].

Native Australian aborigines believed that a frog drank all water on the Earth creating a drought. The only way to end the drought was to make the frog laugh. Every animal in Australia tried to make the frog laugh since this was the only way to end the drought. Finally, an eel succeeded and the frog laughed. The sound of laugh was as the sound of thunder and water poured out of the mouth of the frog. It filled all the rivers and flooded the Earth leaving just the peaks visible. Many drowned and a black pelican painted itself with white paint and rescued many. The pelican is now a symbol of the remembrance of the flood [7].

In the Indian mythology, Manu was the Hindu version of Noah. One day Manu, the King's minister, was washing his hands in a river when a small fish jumped into his hands and appealed to him to save its life. Manu put the fish in a jug and when it outgrew the jug, he transferred it to a pool and finally into the sea. The fish warned Manu that a flood was imminent that week and that it would wash away all life. Manu made a large ship which the fish pushed to the shore during the flood. Luckily there were enough seeds to re-establish life on Earth [8].

In the story of the flood as depicted in the Babylonian Epic of Gilgamesh (similar to the Sumerian depiction), the hero Gilgamesh who was seeking immortality searched for the immortal Utnapishtim in Dilmun. Utnapishtim recounted that Ea warned him that God planned on destroying life with a great flood. He was instructed to build a vessel to save his family, animals and the things that were important to him. He offered a sacrifice when he reached the dry land where he was bestowed the gift of immortality as a peace offering [9].

When Zeus became angry with the hubris of the Pelasgians, he put an end to the First Bronze Age with a great flood. He advised his son to build an arc or a chest that saved him, while a few escaped to the high mountains while the remainder perished. After rains stopped, Deucalion and his wife Pyrrha were on

the top of a mountain where they offered a sacrifice to Zeus. In gratitude, Zeus ordered them to throw stones behind themselves. The stones that were thrown by Deucalion became men and the ones that were thrown by Pyrrha became women [10].

Similar myths are found in other parts of the world like China and Iran [11].

3. Scientific evidence of the flood

It is incorrect to assume that these stories are only primary or religious myths that Science does not consider. Many people feel that a great part of mythology must be studied by Science and the scientific method [12, 13].

In the above-mentioned stories, there is a Supernatural command for floods to occur and these floods kill all, but a few people and animals were saved. The few remaining chosen ones were used to populate the human and animal kingdom again.

Some Greek philosophers including Aristotle believed that the Earth has always existed and that the world is immortal [14]. Although when it came to humanity, they were subjected to 'the mankind improvement paradox'. They believed the natural disasters gave humans a chance to start over with a clean slate. This view was used to natural disasters explaining the scientific phenomena [15].

Some researchers have made a connection between these great floods and the end of the ice age. They claim that melting ice resulting from the changing atmospheric conditions might have given rise to these destructive floods [16]. If we assume that these stories in fact go back to the ice-melting after the ice-age more than 10000 years ago, ice-melting must have occurred gradually, not suddenly. If during this time ice caps melted as a result of global warming, most places on Earth were saved from great floods, but fossil remains can be found everywhere [17, 18].

The ancient Sumerian civilization of Mesopotamia 9000 years ago invented writing. Their origins are interesting. During ancient times, the Arabian Peninsula was covered by a sea just some dozen meters deep. During the Ice age, there was a desirable plain that was irrigated by Euphrates and Tigris, rivers from the Zagros Mountains. Since the sea level increased 2 cm per year on average, the Sumerian people were forced to immigrate to the ponds between the two rivers in Iraq [19]. Perhaps these are the scientific roots of the Sumerian and Babylon flood story. There is scientific evidence that supports the destruction of the Sumerian civilization that is not related to the flood. The Sumerian people developed an irrigation network and constructed several dams without considering the potential disadvantages. The water behind the dams penetrated the ground surface and the level of underground water increased mixing with the salt that was between the stones. The concentration of the water gradually increased resulting in salty farmland and a reduction in agricultural products

[20]. Some people thought that the occurrence of a tsunami covered the coastal area with water and was responsible for the flood myth [21].

It is apparent that flood myths are global stories that have origins in cultures around the world. Some say that the Great Flood of Noah's was global. Science would claim that the Great Flood of Abraham's religion could not have occurred since the Earth is a closed system [22] and the amount of water in the clouds and Earth's atmosphere would not have been sufficient to cover Mountain Everest in water. This was assuming that the surface of the Earth was flat as Sumerian had assumed [23]. Perhaps the dimensions were not known by the Sumerian people when these stories were written. In Ancient Greece their world view at the time depicted them surrounded by the Mediterranean Sea [24]. On the other hand, survival would be hindered if there were just a male and female of each species [25].

4. Fossils and catastrophes

In the previous section, I pointed out that in ancient Greece people believed that occasional catastrophes gave humanity an opportunity to start anew. Undoubtedly the most important evidence left behind was fossils, which were found everywhere. Especially because many of the fossils are pelagic there is an enough reason for people to assume that ancient floods did in fact occur. In the ensuing centuries, the great catastrophes theory was used as a means to justify fossils in the dawn of the evolution theory.

Catastrophic is a geological and geomorphic theory that all major appearances such as volcano and deep valleys must appear on the surface of the Earth. These appearances had cleared all organisms and the new organisms were created again after several geological phenomena. There were also various fossils that could be found everywhere to support catastrophic theory. According to this theory, the living entities do not evolve, but they are only destroyed and created by unexpected geological phenomena. This theory was supported by the Church and was considered to be an alternate theory. During the 18th and early 19th centuries, supporters of the catastrophes theory tried to associate fossils with Genesis. They thought Noah's flood was the final in a series of great catastrophes that abolished all animals. After each catastrophe, there was a resurrection that occurred and the Earth was replenished with newer animals and plants. With each catastrophic event, animals that perished became fossils in the layers of the Earth's surface.

French biologist, anatomist and archaeologist George Cuvier (1769-1832) studied the fossils of Mammals in Paris. In his opinion, the sequence of different species showed the several worldwide catastrophes with Noah's flood being the final one. Cuvier assumed that some of the species remained and their population was growing. He estimated that 30 great catastrophes had occurred [26]. Discoveries during the eighteenth century gradually disproved the great catastrophes theory. Because a large number of great disasters were used to explain the occurrence of fossils and the theory lost its credibility.

Secondly, it appeared that instead of the great catastrophe theory there was an alternative theory called the theory of Evolution. Fossils that were found in Northern Europe and America that were thought by some to be remnants of Noah's flood were in fact sediments of the glaciers [27]. There was much more evidence found in favour of evolution of animals. Evidence showed that the fossils are ancestors of present animals or extinct species. Darwin and Wallace thought about an appropriate mechanism for evolution. That mechanism was natural selection. The natural selection is a mechanism in the chain of the generations, which makes the organisms inherit traits that are useful for surviving an individual in a population. Natural selection is one of the main concepts of evolution. Inside a population various genetic causes some of individual of the population to survive and to increase. In order to produce new types and new traits, genetic diversity is required [28].

5. Conclusions

As mentioned above, great flood stories have been recounted in history in various forms all over the world, including in ancient civilizations. These stories share the common primary human concern of natural catastrophes like floods and other natural disasters which are destructive. Even though these stories are expressed using different depictions, they all have a common theme as well as a scientific explanation. Enormous fossils that span geological epochs have remained in the earth.

This is a simple primary theory like those derived to explain earthquakes and the seasons. In Indian mythology, the Earth is on the back of four huge elephants and the elephants are on the back of a very large turtle. People in pre-ancient civilizations had very basic intellectual capabilities and were not able to conjure up more complex explanations than big floods occurring to banish humanity and creatures. This theory was accepted more because it received support from the Christian Church during medieval times.

My idea is supported by the fact that the great catastrophes theory used against the new evolution theory during eighteenth and beginning of nineteenth centuries. The great catastrophes theory was supported by the Church as well as by some great biologists, who welcomed it. This theory however failed in its explanation of the fossils and the alternative Darwinian theory of evolution became more accepted. Of course catastrophic and evolution theory are not completely in contradiction and they are not the only two different theories for the explanation of the same subjects, but also two rival theories.

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