

THE CANOPY IN WORLD MYTHOLOGY

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For many years creationists have seen in the numerous ancient legends of a global deluge evidence of a circumstantial nature for the flood of Genesis. It has not heretofore been pointed out, however, that similar testimony exists for a "water heaven" such as that described in Genesis 1:6-8. This suggests another line of confirmation of the vapor canopy theory. In this article an attempt is made to summarize this anthropological evidence for the vapor canopy from various legends all over the world.

The science of cultural anthropology has added some possible evidence for the existence of the pre-flood celestial ocean. In nearly every culture there is an account of a great flood which inundated the earth and destroyed all mankind. In these stories a man or a family or a couple, etc., were saved by a canoe, an ark, or by climbing a mountain. In many of these accounts there are references to a climatic regime and even to a water heaven that offers striking parallels to the Genesis record. Evidence of this kind must be handled with care, and not too much can be made of it. However, where once the trend in these kinds of studies used to be to write it all off as primitive myth, now there is growing recognition of a possible historical basis that gave rise to these myths. Opinions differ and nothing can be said with certainty, but the evidence found in these myths is so widespread and so similar to Genesis that it seems appropriate to give it brief comment. It must be remembered, however, that this evidence is not the basis for belief in the pre-flood canopy or in the fact of the global deluge. That evidence rests primarily on the Biblical statements. These myths can be viewed as offering a possible supplementary confirmation.

Assuming the reliability of the Biblical account, one can give a quite plausible explanation of the origin of these stories. Obviously, in the years following the flood, Noah and his sons would have shared the events of that fateful year of the deluge many times with their children. They would have often drawn attention to the differences between conditions that existed in the pre-flood world and those of their generation. The decreasing longevity would have caused alarm and comment. When their children asked, "What was it like before the flood", their answers would have been remembered, and in time taken worldwide by successive generations. In the process, the stories would have been mythologized, distorted, exaggerated, added to, modified, etc., until the original became only a faint memory. In the following pages, some of these "cultural memories" of an antediluvian water heaven will be analyzed. These do not represent eyewitness accounts, but reports passed on through Shem, Ham and Japheth to their posterity.

The most comprehensive compilation of global flood stories is that by Sir James George Frazer in his three-volume *Folk-Lore in the Old Testament*.¹ He cites evidence of flood accounts from the Indians in North America to the Indians of India. Hawaii, Alaska, Indonesia, Europe, Asia, Australia, and Mesopotamia all have flood accounts. Needless to say, as the tribes

migrated farther and farther from Ararat, the stories became more and more distorted. In fact, this point has been carefully documented by John Montgomery.² This impressive evidence would seem to substantiate the view that these stories *do* have a common origin and are not exaggerated tales of local catastrophes, as some have maintained.³

The Canopy in Ancient Mythology

After an analysis of numerous mythological accounts of the ancient earth, Kellogg concludes that many of them tell of a visible water heaven, scintillating with light.⁴ This heaven was the home of the gods, and it obstructed the power of the sun god. One day this water heaven was banished, and the sun came riding through as the conqueror of heaven and master of the wind and rain. One who believes the Biblical account of primeval vapor canopy is tempted to see ancient allusions to the new burst of "sun power" that was undoubtedly unleashed when the canopy condensed during the rainfall of Noah's flood. The ancients took this as the victory of the sun god over the watery heaven. Isaac Vail noted a similar theme in many myths:

We will find the ancient heaven represented as a screen. We will find the sun concealed—a slave or subaltern to an overmastering power; you will find the sun finally exalted through elemental conflict with Titan and Giant vapor, or tempest enemies, into immortality.⁵

It is interesting that many of the words for "heaven" in ancient manuscripts in some cases seem to have an etymology that suggests the idea of a celestial ocean. For example, in Akkadian and Arabic, the cognate words for "heaven" are used by metonymy to mean "rain". In this mythology it refers to the upper part of the cosmic ocean which enveloped the earth and is made of water.⁶ The Greek word for "heaven", *ouranos*, is probably derived from *ou*, "there", and *raino*, "to sprinkle"; hence, the "there waters".⁷ Interestingly, it was located above the ether, or upper, air.⁸ Thus, it parallels the Hebrew idea of waters *above* the expanse and not *in* them. The phrase is often found in the Orphic writing of the cosmic egg which bursts open. The upper shell became the envelope of the world.⁹ In Homer, a brazen, iron, starry heaven, resting on pillars, served as the habitation of heavenly beings.¹⁰ In the Magic Papyri, too, the term *ouranos* is common: as the firmament which includes the heavenly ocean.¹¹ Some have seen the etymology of the Hebrew word, *Shamayim*, as coming from *sham*, "there", and *mayim*, "waters". Hence, like the Greek *ouranos*, we have again

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the "there waters".¹² Others feel this Hebrew etymology is erroneous.¹³

Eastern Asia

Numerous accounts of a flood and of a celestial vault are reported from this area. The Karen of Burma, for example, believe that the water of the great flood came down from the "celestial vault".¹⁴ This seems to be an idea similar to the celestial ocean held up by a metallic dome found in other myths.

Babylon

In the Babylonian creation account, *Enuma elish*, there are a number of references to a celestial ocean. As the story goes, Marduk went to war against the Babylonian chaos monster, Tiamat, the salt water ocean. In this account, there are three types of water. Apsu represents the sweet water ocean, Tiamat the salt water ocean, and Mummu the fog, the mist and the clouds which rose from Apsu and Tiamat and hovered over them. Thus Tiamat was considered the primeval ocean which surrounded the universe, while Apsu is the subterranean waters that fed the springs and rivers.¹⁵ Possibly Apsu is paralleled by the waters of the deep in Genesis 7:11 that supplied most of the water for the flood. When Marduk overcame Tiamat, he cut her body in half vertically. With one half of her body he formed the earth and with the other half he formed the sky (*Enuma Elish*, IV:138). Thus, half of the primeval ocean is now up in the sky! This seems to parallel the "waters above the firmament" motif of Genesis. After this water was placed in the sky, a crossbar was fixed and guards were posted and commanded to prevent the celestial waters from escaping (IV:139; see IV:128-145, the "windows of heaven" of Genesis 7:11?). Marduk used these waters to construct the sky. They had to be prevented from falling back to earth.¹⁶ The text reads:

He cleft her (Tiamat) like a fish, in two halves;
From the one half he made and covered the
heaven.¹⁷

In Babylonian parallel to the Biblical flood account, *The Gilgamesh Epic*, there are a number of references which, when viewed in the light of the Genesis record, have some interesting implications. Genesis speaks of the flood being caused by the break-up of the fountains of the deep and by torrential rains. In *The Gilgamesh Epic*, "the land he broke like a pot" (the break-up of the fountains of the deep?)¹⁸ Furthermore, torrential rains and destructive winds (the "great wind" of Genesis 8:1?) accompanied by lightning and thunder are the cause of the flood (XI: 96-131). Dikes, canals, and reservoirs burst open (XI: 90-131).

A Buddhist Account

The Buddhist account of creation involves a vague and confusing reference to a "creative cloud" from which poured the waters which began to rotate in a "water circle". Out of this came the earth.¹⁹ This creative cloud began to pour out gold, water, precious stones, iron, etc., onto the earth. Thus, they seemed to have conceived the early earth as covered by some kind

of vaporous cloud canopy. It is not difficult to conceive of a vague memory of the "waters" above narrated by Noah's sons.

Egypt

In ancient Egypt, the heaven was regarded as an ocean parallel with that on earth.²⁰ The sun god traveled in a barge through this ocean which "surrounds the world".²¹ This watery heaven was the god *Canopus*. His symbols were a water vase and the serpent. His very name is a memorial to the vapor canopy.²² According to the legend, in the beginning only ocean existed upon which appeared an egg, out of which issued the sun god. From himself he begot four children: Shu, Tefnut, Geb, and Nut.²³ Nut was the sky goddess. In primordial times, she was embraced by the earth god, Geb, until Shu, the god of the atmosphere, separated them by elevating Nut high above the earth and placing himself beneath her.²⁴ In a modified version, Re, the sun god, sprang from the union of Geb and Nut. He travels by day across the celestial ocean in a boat.²⁵ When night comes, he transfers to another boat, descends to the netherworld and continues his voyage. In the account of Shu and Tefnut, the atmosphere, thrusting themselves between Geb and Nut and raising Nut into the heavens, we have an obvious reference to the separation of the waters below the expanse from the waters above the expanse of Genesis. The Egyptians received the story from Noah's sons through many generations and recounted the reference to a literal liquid water ocean above the atmosphere.

Greece

The myths of Hellas have captivated the imaginations of men for centuries. Perhaps none of them is more moving than the majestic epic poetry of Hesiod. Born in 846 B.C., this farmer-turned-poet composed many poems, among which his *Theogony* is most famous. In it he gives the readers a "Genealogy of the Gods".²⁶ In the beginning, Hesiod says, was Chaos, and the *Theogony* traces the development from chaos to cosmos just as the Biblical account in Genesis does.²⁷ From Chaos was born Erebus ("misty", "black Night"); and from the black Night (Erebus) came Aether and Day. Aether is the "bright, untainted upper atmosphere, as distinguished from Aer, the lower atmosphere of the earth".²⁸ Above the Aether was Ouranos (Heaven). As pointed out above, this heaven may be etymologically derived from "there waters". At any rate, in the Magic Papyri the term *ouranos* is common for the firmament which includes the heavenly ocean.²⁹ Ouranos or Uranus,³⁰ mated with the earth and she bore the Titans, one of which was Cronos.³¹ Cronos is *not* the god of time as is popularly conceived.³² His precise nature is unclear, but he prevents his father, Ouranos (the "water heaven") from ever mating with his mother again by castrating him. Uranus is no longer mentioned in Greek mythology as a god to whom worship is ascribed.³³ This enforced separation between Ouranos and the Earth seems to parallel the battle between Marduk and Tiamat. The castration would suggest the conquest of Tiamat, her being cut in two, and her restraint up

above the firmament. Thus, when Cronos comes to the throne, the water heaven has already been restrained.

During the reign of Cronos, a golden age prevailed. Men lived without sorrow, were free from toil and grief, and also enjoyed long life.³⁴ Interestingly, there were two suns—Hyperion and Helios. While Cronos reigned and men enjoyed the golden age, Hyperion was the sun that shone on this planet.³⁵ Hyperion was the son of Gaia (earth) and Uranus (the sky, or “water heaven”).³⁶ In a later age, under Zeus, Hyperion is displaced by his son, Helios, and a new sun takes over.

The fall of Cronos and the golden age came about by the rise of Zeus, the son of Cronos. The myths present Zeus as the weather god. He was particularly responsible for rain, hail, snow, and thunder. Thunderbolts were his constant and infallible weapons, and one of his most common Homeric epithets was “Gatherer of Clouds”.³⁷

It is easy to see how this bizarre cosmogony could reflect a distorted version of the true situation described by the sons of Noah to their descendants. Under the canopy, the earth would have enjoyed a “golden age” such as Hesiod describes. Furthermore, a gathering of clouds, rain, and thunder must have marked the end of that “golden age” in the Bible with the collapse of the canopy and the Deluge. Thus, Zeus, the cloud gatherer, may reflect the cloud canopy from which the rain of the Deluge fell. He was the god of weather and rain, and it was rain that ended the “golden age”.

Under a canopy a dimmer sun would have been observable in the antediluvian heavens. Could not the Greek myth reflect this in the transfer of power to the new sun, Helios, when Hyperion lost power as the golden age ended? Table 1 illustrates some possible parallels with the Biblical account. Admittedly, the parallel is not as precise as the table indicates. Zeus, for example, did not end the “golden age” with a Deluge (although his name is associated with a plot to destroy the human race by flood).³⁸ Also, the Greeks continued to believe in the existence of the water heaven and the solid dome until at least the third century B.C. However, the parallels are close enough to suggest a common source. Perhaps both Genesis and the Greek myth go back to a report passed on through Noah.

India

Indian religious literature is full of references to a water heaven that could possibly be interpreted as the

Table 1. Parallels between Greek and Hebrew possible references to the canopy.

	<i>In the Beginning</i>	<i>Conquest of Chaos</i>	<i>Canopy Era</i>	<i>Deluge</i>	<i>Post-flood</i>
GREEK	Chaos	Ouranos & Gaia separated	Longevity Golden Age Ouranos Hyperion	Zeus, god of weather	Silver, bronze & iron age, New Sun, Helios
HEBREW	The Deep	Division of waters	Longevity “it was good” “waters above”	“windows of heaven”	Longevity declines

liquid ocean of the Hebrew records. In the *Vedas* and in the *Avesta*, the idea of an upper or heavenly sea is frequent.³⁹ Originally, the upper waters were ruled by Varuna, the guardian of the “sea of heaven” from which he sent rain.⁴⁰ He acquired his position as “lord of the waters” after the great god Indra conquered the Chaos monster, Vritra, who, like Tiamat in Babylon, restrained the release of creative forces until conquered by Marduk. When Vritra was defeated by Indra, her belly was slit open and the cosmic waters were driven to their place in the atmospheric ocean where Varuna was instated as their ruler.⁴¹ Subsequently (the chronology is ambiguous) Varuna was ousted from her position as the guardian of the atmospheric waters and made guardian of the terrestrial waters.⁴² Indra took over as god of the atmosphere. Varuna now resides in the netherworld at the roots of the world tree and near to (or in) the subterranean cosmic waters.⁴³ Today, Indra is the god of Nature, a kind of Hercules with the characteristics of Zeus. He rules the sky, and when he thunders, he lets loose the rain. He is called “lord of heaven”, or “rider of the clouds”, or “the thunderer”.⁴⁴

There is also an interesting myth related to the sun. During the rein of Varuna, the water heaven, the sun was Ahura-Mazda. Varuna ruled and the divinity of light, Mithras, was subordinate to him. During his reign, Mithras was not the sun—he simply was the god of the upper air.⁴⁵ “But somehow, somewhere, he became the central deity in an almost new religion”.⁴⁶ In the new religion, Mithras, the new sun, was born from a rock, i.e., the sun rising above the mountains. Mithras was a kind of ally with Ahura-Mazda. Apparently, there was a problem with darkness, so Ahura-Mazda instructed Mithras to solve the difficulty. Mithras promptly killed the wild bull that was responsible, and light reigned. In other stories, the darkness tried to destroy the human race by a flood, and Mithras, the new sun, rescued mankind.⁴⁷

The similarity of these myths to the Hebrew account is striking. Both begin with a situation of chaos which is overcome by the conquering god. The waters of the chaos monster are ruled in a heavenly ocean by Varuna, the sea of heaven. While Varuna reigns, Ahura-Mazda is the sun. With Varuna’s ouster (the condensation of the canopy?), a new sun is instated, Mithras (a former subordinate of Varuna’s), and darkness has been overcome. Certainly, just prior to the flood, the world was enveloped in semi-darkness due to the clouds. When the canopy condensed, a “new sun” with greater brightness and slightly differing optical appearance would have appeared in the post-diluvian heavens.⁴⁸ The god who overcame this darkness, ousted the water heaven, was the god of the storm, weather, rain, and clouds, Indra. In some of the stories, the birth of the new sun is connected with his saving of the world from the global deluge, precisely the parallel predicted by the collapse of the Genesis canopy and subsequent flood. The nature of these parallels with the Hebrew account can be easily seen in Table 2.

Persia

In the Persian sacred book, the *Zend-Avesta*, a deluge legend is told.⁴⁹ For 900 winters the sage Yima (the first

Table 2. Parallels between the Indian and Hebrew references to the water heaven.

	Beginning	Conquest of Chaos	Restraint of Chaos	Release of Water Heaven
INDIA	Chaos "Vritra"	Indra slits Vritra's belly and drives the waters into the atmospheric ocean	Rule of Varuna, the water heaven Old Sun	Varuna ousted Indra, the storm god, supreme New sun, Mithras Flood (in some stories)
HEBREW	Chaos "The Deep"	The division of the waters	Canopy	"The windows of heaven were opened" Flood

mortal with whom the creator conversed) reigned over the world under the divine superintendence. And during all that time, there was neither cold wind nor hot wind (i.e., a temperature equilibrium such as would be produced by a vapor canopy greenhouse effect), neither disease nor death (longevity?). Because of the favorable climatic conditions, mankind and animals apparently increased at such an alarming rate that the earth had to be enlarged three times to accommodate them. The creator decided that a flood was the answer to overpopulation and proceeded to destroy them all. He informed Yima that upon the material world the fatal winters are going to fall, and that he would bring a fierce, foul frost. Such a situation would be expected with the collapse of the vapor canopy. A new climatic regime would be introduced. There would be a sudden deep freeze in many parts of the world, even in presently tropical regions.⁵⁰

Polynesia

The islands of the South Pacific are rich in traditions which speak of a flood and possibly of a concept of a water heaven. Among the Ifugoo, in the Philippines, for example, it is said that the sky used to be so close to the earth that it interfered with the sharpening of one's spear!⁵¹ Apparently, the Manobo of Mindanao say that the sky was once very close to the earth, and that while a woman was pounding with her pestle, she accidentally hit it, causing the heavens to ascend to a great height.⁵² In Borneo, six suns reigned in succession while the sky hung low. With the advent of the seventh sun, the sky retreated to its present position. Similar tales are found in many of the islands.⁵³

Again, the theme of a new sun as would be predicted by the collapse of the Genesis canopy is found. The seventh sun is the most intense because the obstructing heavenly waters have been removed.

A Maori legend describes a division of the waters in a way similar to the Genesis account.

And now a great light prevailed
 Io then looked to the waters, which composed him
 about,
 And spake a fourth time saying:
 "Ye waters of Tai-kam, be ye separate, heaven
 must be formed."

Then the sky became suspended.⁵⁴

Note that the division of the waters here occurred after the creation of light, just as in Genesis.

Rome

The famous Roman poet, Ovid (43 B.C. to A.D. 18) compiled many ancient Roman myths in his magnum opus, *Metamorphoses*. These fifteen "books" published in A.D. 7 recounted in engaging hexameters the renowned transformations of inanimate objects, animals, mortals, and gods. Since almost everything in Greek and Roman legend changed its form, the scheme permitted Ovid to range through the whole realm of classical mythology from the creation of the world to the deification of Caesar.⁵⁵ One of his themes involves the four ages of the world. Here he traces the traditions of ancient Roman mythology which depict the earlier stages of the ancient earth. The first age was the GOLDEN AGE:

The earth itself, too, in freedom, untouched by the harrow and wounded by no ploughshares, of its own accord produced everything; and men, contented with the food created under no compulsion, gathered the fruit of the arbuté-tree, and the strawberries of the mountain, and cornels, and blackberries adhering to the prickly bramble-bushes, and acorns which had fallen from the wide-spreading tree of Jove. Then it was *eternal spring*; and the gentle Zephyrs, with their soothing breezes, cherished the flowers produced without any seed. Soon, too, the Earth unploughed yielded crops of grain, and the land, without being renewed, was whitened with the heavy ears of corn. Then, rivers of milk, then rivers of nectar were flowing, and the yellow honey was distilled from the green holm oak.⁵⁶

Here is an interesting mythological description of a time in which the earth brought forth abundant crops; there were no seasons, only an "eternal spring," or uniformly sub-tropical temperature regime. This seems to parallel closely the conditions predicted from Genesis, i.e., the greenhouse effect of earth's ancient water heaven.

During the golden age, Saturn reigned. Saturn was an ancient rustic god equated with the Greek Cronos.⁵⁷ During the reign of Saturn, life was easy and happy. He taught men to farm and how to enjoy the gifts of civilization. His name is derived either from *saturn*, "stuffed, gorged," or *sator*, "a sower." If *sator* is the root of the name, then it would indicate his connection with the abundance of the golden age.⁵⁸ Saturn took over the rule from Coelus, Rome's most ancient deity. Coelus is roughly equivalent to the Greek Uranus or water heaven.⁵⁹ When Saturn took over, the water heaven was under his control and a golden age prevailed. It is not difficult to see here the subjugation of the waters theme from Greece where the waters of chaos are restrained as in the Genesis record. Saturn was deposed by Jupiter just as Cronos of Greece was deposed by Zeus. Jupiter is related to Zeus and was thought to be responsible for weather of all kinds, especially lightning and rain.⁶⁰

The next Age, according to Ovid, was the Silver Age. Jupiter shortened the duration of the former spring,

and divided the year into four periods by means of winters, and summers, and unsteady autumns, and short springs. Then for the first time, did the parched air glow with sultry heat, and the ice, bound up by the winds, was pendant.⁶¹

If, as the first chapters of this thesis have attempted to demonstrate, the earth was indeed once surrounded by a canopy of water or vapor, one would predict a relatively insignificant seasonal variation. Furthermore, such a lack of seasonal differences may be implied in Genesis 8:22. Thus, with the collapse of the canopy, drastic seasonal differences would have been introduced for the first time. This is the situation noted in the Roman myths.

Sumer

In ancient Sumer, the oldest known civilization, accounts of the water heaven are found. In the Sumerian creation Epic, the ancient theme of the separation of the water heaven from the earth is recounted:

After heaven had been moved away from earth,

After earth had been separated from heaven . . .⁶²
This separation was effected by the air god, Enlil.⁶³ The Sumerians believed that the waters above were maintained up there by a solid metal vault. The composition of that vault may have been, in their thinking, tin, in so far as the Sumerian term for tin is "metal of heaven."⁶⁴ Heaven and earth were originally created by Nammu, as a symbol for "sea."⁶⁵ Thus, the heavens were watery. According to the Sumerians, inside this upside-down vault the sun, the atmosphere, the stars and the planets were found.

Surrounding the "heaven-earth" on all sides, as well as top and bottom, was the boundless sea in which the universe somehow remained fixed and immovable.⁶⁶

Thus, in a garbled form, one can detect the Hebrew idea of the waters above being formed out of the waters of the primeval sea.

The Sumerian deluge story is also similar to the Hebrew.

All the windstorms, exceedingly powerful, attacked as one. The deluge raged over the surface of the earth seven days and seven nights. And the huge boat had been tossed about on the great waters.⁶⁷

An Analysis

Interpretation of these myths is a tricky business. There are so many unknowns as to what these people really believed that no certain statements about details are possible. Did they really believe, for example, in wooden sluice gates (Babylon); an air god separating heaven and earth (Sumer); a metallic dome for the heavens; or that rain came through the windows in Baal's house (Canaan)? Much of the confusion exists because the ancients viewed all of nature as personal. They did not seem to draw the subject-object distinction between human beings and nature itself. They did not personify nature, i.e., ascribe human characteristics to it, but they actually perceived nature as personal and of the same "stuff" as human beings. It was all united in one large unified being. Hence, to speak of sentries

posted at the heavenly sluice gates did not necessarily mean little men in uniform standing guard. The restraining forces, whatever they were, were personal and may have only been conceptualized as particular humans.⁶⁸

However, it seems to be felt by many that there may be some mechanistic basis for the myths. Guirand summarizes:

. . . some have interpreted the noisy quarrels of Zeus and Hera as a mythological translation of storms or the struggle of the meteors and atmospheric disturbances in revolt against the sky They were only translating the emotions they felt in the face of nature's great mysteries into gracious and poetic forms.⁶⁹

Frequently they are simply a romanticized form of natural phenomena; sometimes they are allegorized accounts of historical facts.

For these reasons, it is always dangerous to try to read too much into these stories. However, the parallels with the Genesis record of a water heaven are frequent, interesting, and very precise. This suggests either that one borrowed from the other, that they arose independently, or that both were derived from a common more ancient source.

How are the accounts of a flood to be explained? Cultures from Babylon to South America report flood legends that parallel closely the details of the Genesis record. Furthermore, as argued above, there are widespread accounts of an ancient water heaven. While this evidence could be explained in many ways, it is specifically predicted on the basis of a normal exegesis of the Genesis account and the assumption of its truthfulness. If there were a water heaven which condensed and resulted in a global deluge, one would expect to find universal flood and water heaven traditions—and this is exactly what one does find. This tends to supply circumstantial evidence for an anthropologically universal flood. Secular anthropologists today, of course, simply say that Genesis borrowed and slightly purified these grotesque myths. Thus, the existence of these legends (instead of being evidence for a global deluge) are reduced to evidence that Genesis borrowed from Babylon. Now suppose there were no such traditions; then what would the secular anthropologist say about the Genesis tradition? "Would they not use this very lack of circumstantial evidence as a weighty objection to the veracity of the Biblical account?"⁷⁰ Thus, the presence of the legends serves in these people's eyes, to condemn the Biblical account, and their absence would probably do the same. Obviously, such arguments prove nothing.

The use of these legends as evidence for an anthropologically universal flood (or water heaven) has, indeed, been severely questioned by modern scholars. Sir James George Frazer says:

Formerly, under the influence of the Biblical tradition, inquirers were disposed to identify legends of a great flood, wherever found, with the familiar Noachian deluge, and to suppose that in them we had more or less corrupt and apocryphal versions of that great catastrophe, of which the only true and authentic record is preserved in the Book of

Genesis. Such a view can hardly be maintained any longer.⁷¹

However, Frazer's conclusion is too hasty. One needs to examine the reasons he sets for rejecting the common source hypothesis. They are twofold.

First, he argues that many of the flood stories are too "diverse, often quaint, childish, or grotesque" to be copies of a single human original. Now Frazer may be right in his assertion that the flood stories do not come from a common source, but it is hard to see how his first objection to such a view can be taken with any seriousness. These kinds of distortions are exactly what would be expected if they did all descend from a common source. Frazer seems to think that simply making a statement that they cannot be copies of a distant original is proof of the statement.

Secondly, Frazer argues that modern research has "proved" that the supposed divine original in Genesis is not an original at all, but a comparatively late "purification" of a much older Babylonian or rather Sumerian version. Not only has modern science failed to *prove* this, however, but in fact it has proven exactly the opposite. Within fifteen years of the publication of Frazer's book (1918), archaeological investigations in the Near East totally overturned much of the testimony upon which his statement was made.⁷²

Also, recent excavations at Tell Mardikh (Ebla) in Syria have revealed a creation account dated hundreds of years before the Babylonian that is already "purified." It has none of the polytheistic absurdities of the *Epic of Atrahasis* or the *Enuma Elish*. Thus, the Hebrew account is more like this older version than the Babylonian.⁷³

But not only is Frazer's case not proven, he also apparently has set up a "straw man" in place of what the conservative evangelical position really is. No one today maintains that Genesis was the original account and that everything in ancient mythology was copied from it. What is asserted is that Genesis itself is an accurate representation of the ancient source while the pagan myths are distorted versions of the same source.⁷⁴ Whether Moses received this information about the flood by direct revelation, or through divinely preserved oral tradition, or through written records, is unknown. But unless one is assuming the impossibility of revelation, or at least the impossibility of its coming to Moses, Frazer's argument hardly carries any weight. And since ultimately that is the very point in question, there is no need to concede the validity of his point. His argument begs the question.

Having already rejected the notion that these flood stories could be authentic cultural memories of the account described in Genesis, Frazer is then left with the perplexing problem of explaining the origin of these stories. If they did not arise from the account of the flood passed on by Shem, Ham, and Japheth to their descendants, where did they come from? Frazer makes four points, or assumptions, in regard to this.⁷⁵

(1) His first point, or controlling assumption, is that the stories of global inundation must be false because modern geology says it is impossible. His certainty rests ultimately in the interpretations of the geological strata offered by the contemporary historical geologist. How-

ever, this interpretation is open to serious challenge. In fact, there seems to be rather convincing evidence that it is the modern geologist's interpretations of fossil strata that are "impossible," and not the fact of a global deluge. Convincing evidence is being presented by many creationist scientists that a global deluge may be the only way the geologic strata can be adequately explained.⁷⁶ But, more importantly, God has clearly revealed to us in His Word that just such a deluge took place, and such a direct revelation of past conditions must take precedence over the finite inductive science of the historical geologist!⁷⁷

(2) Since modern geology has "proven" that there cannot have been a global flood, these stories of such a global flood must represent local catastrophes which, in passing through the medium of popular tradition, have been magnified into worldwide catastrophes (unless, of course, these accounts are positive evidence for a global catastrophe!). Frazer then cites stories of violent floods in Holland and other places around the world as evidence of local catastrophes that could have been magnified in transmission into global flood stories. However, even though this could certainly have happened, and probably has, in none of the local catastrophes he cites does he say that they were ever so magnified. Thus, he has hardly proved his point! "Could be" is not "is".

Furthermore, the "magnified local affair" theory suffers from its inability to explain the numerous similarities. In many of the accounts that Frazer himself documents, such details as the sending forth of the dove, the salvation of eight people, an ark, two of every kind, etc., are present. John Bright has rejected Frazer's view for similar reasons.

... it is difficult to believe that so remarkable a coincidence of outline as exists between so many of these widely separated accounts can be accounted for in this way.⁷⁸

Frazer, of course, has a ready answer for these striking similarities. He says they are the result of the preaching of Christian missionaries!⁷⁹ Such an origin for many of these stories is, however, incredible. Byron Nelson has effectively refuted this thesis with several observations.⁸⁰

(1) There are no universal legends of other great miracles recorded in the Bible, such as the crossing of the Red Sea. Why were only the flood and "water heaven" legends dispersed?

(2) Secondly, why are there so many differences in detail and in emphases in all these legends if missionaries are the common source?

(3) Thirdly, as Whitcomb and Morris have observed, it seems highly unlikely that Christian missionaries would ever have reached all these tribes; and, if they did, they would hardly have given priority to describing the flood, but would have presented the Gospel.⁸¹ It would be a knowledge of Christ that would be found in these tribes if Christian missionaries had truly been there.

Frazer's third objection is, maybe, more substantial. He points out that the flood stories which come from islands in the sea or from sea-coast communities and tribes ascribe the flood to rising water and not to rain. This, he argues, would tend to suggest that the stories

were indeed of local catastrophes which were magnified. For in those island and sea coast communities, floods were generally caused by earthquakes at sea that sent a tidal wave roaring over the island. Since in the global flood stories of these communities only this kind of causative agent is described, it logically appears that they simply took a common local catastrophe and magnified it. Frazer's point here seems to have some force; however, there is another possibility. Frequently in the transmission of ancient stories and legends, the details will be modified to fit circumstances with which the local community is more familiar. An obvious example is the custom of Medieval artists of depicting Old Testament characters in Italian robes! Furthermore, it is common for local circumstances to get woven into any ancient story.⁸² This is particularly noticeable in the tendency to bring ancient heroes and gods into the primitive stories. The Egyptians' myths, for instance, are full of this tendency. As an original story from the city of Memphis is passed on to the city of Thebes, the local deity at Thebes takes the place of the deity at Memphis, or the theology is slightly modified to accommodate both. Thus, it could be that the island and sea-coast peoples lost or played down the notion of rain as a causative agent during the transmission of the story because they wanted to account for the flood, indeed, they thought of floods, in terms of the causative agent with which they were familiar—namely, rising tides produced by earthquakes at sea. Maybe they forgot how to conceive any other kind of flood.

Finally, Frazer argues that, since the earthquake at sea can explain the coastal flood stories, then why cannot heavy rains explain the inland flood stories? Could be? Maybe? Might have been? This argument obviously encounters the same difficulties as the preceding. Also, it is based on an unproved assumption: that flood stories among coastal people are due to tidal waves.

The simplest way to account for the universal testimony to a water heaven and a global flood is to grant that they represent a genuine cultural memory of a situation described by Noah's sons to their descendants. While the case for a pre-flood vapor canopy does not rest on this kind of data, it is certainly strikingly confirmed by it. The early invention of writing, the excellent memories of ancient peoples, and the tendency of kings and other individuals to preserve their records in writing have led many anthropologists to believe that behind all legends there is an element of historical truth.⁸³

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EVOLUTIONISTIC DEFENCE AGAINST THERMODYNAMICS DISPROVED

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(Continued from March, 1980)

Certainly the Earth receives energy from the Sun. It loses an equal amount, for the average temperature remains about constant. However, it is energy received as heat which is most important in the present discussion? It is true, of course, that the heating is incidentally necessary, in order to keep the temperature suitable for living things. But if this were the only point, the open system would have little to do with the matter. If only temperature mattered, a closed system, at the appropriate temperature, should be just as suitable for the origin and development of life. So from that viewpoint, it would be irrelevant whether or not the system was open.

But in fact, is it the receipt of heat which is most essential? By considering photosynthesis, one might decide that rather it is the receipt of radiant energy; certainly in photosynthesis just heat would seem to be no substitute for the proper radiant energy.

Now the receipt of radiant energy corresponds to work done on the system; it is more like mechanical work—shaft work, engineers say—done on the system, than like the receipt of heat. It is more as if the radiation were received by a solar cell, which then, by electrical means, did work on the system. So, since matters were being considered in terms of a change of entropy, consider the effect of such work on a system in which everything happens reversibly.

In the system shown schematically in Figure 2, let work, or amount W , be done on the system. There it is

shown as being done by turning a shaft from outside.

How is that work to be used up in the system? (Which is now considered as a thermodynamic system, not necessarily something living.) The first thought is to dissipate it by friction. That is what is done in a brake test on a motor, for instance. But it was desired to have reversible processes; and friction is not reversible.

So proceed as follows. Have the shaft work used to drive a heat pump,⁶ incorporated into the system. Let the pump take in an amount q of heat from a reservoir of heat at an absolute temperature t , and give out a larger amount Q to another reservoir at a higher temperature T , as shown. In principle, t might be only infinitesimally more than absolute zero.

In appropriate units, the net amount of heat given out, $Q-q$, will be equal to the work W . And if t is infinitesimal, as suggested, so is q .

Also, since the heat pump is reversible, Carnot's theorem⁷ will apply, so that $Q/T = q/t$. Now, due to the heat taken in, there would be an increase of entropy of amount q/t . But due to that given out, there would be a simultaneous decrease of amount Q/T . But the amounts are equal; so the entropy does not change. In particular, then, the entropy of the system is not made to decrease by doing work on the system.

Indeed, a similar conclusion follows even if the action of the Sun be considered as merely supplying heat, provided things be done reversibly. Consider, for instance, the system shown in Figure 3.