

When the Rains Failed: Studies in Climatology and the Biblical Text

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CHAPTER 4: PROBLEMS WITH CLIMATOLOGICAL INTERPRETATION

Empirical Problems with the Climate Change Model

The climatological model for interpreting Genesis 1-11 is not without serious problems. The first problem is that some scholars would reject the practicality of applying climate change evidence either to the archaeological record or the biblical text. The fields Biblical Archaeology and Biblical Exegesis adapted to climatological evidence more slowly than other parts of the academic world. James Sauer noted in 1994 that many archaeologists still believed that climatic conditions in the ancient Near East had not changed significantly over the last 10,000 years. Sauer traced several lines of evidence that demonstrated the reality of climate change during this period.¹

The climatological model also faces empirical problems with the model itself. Several of these problems are related to chronology. As has been noted, the date for the Younger Dryas has been a topic of repeated debate. When evidence for the Younger Dryas was first discovered, it was believed that two great cold epochs dominated the post-glacial world. The first cold period was thought to have followed initial post-glacial warming and to have lasted from 13,000 BC to 11,000 BC. This cold epoch was called the Older Dryas. This cold period was followed by the Alleröd Fluctuation and the Younger Dryas. While some authors continue to defend this pattern, many others now combine the Older and Younger Dryas, and date the Younger Dryas at any time between 8000 BC and 13,000 BC. This debate suggested at least some uncertainty in the interpretation of the evidence.

The climatological model for Genesis 1-11 also suggests that settled human populations should only have appeared after the proposed 10,000 BC date for the Garden of Eden. The field of Archaeology is badly split on the date defended for the appearance of settled village life. About half of the authors in the field claim that there is no evidence for agriculture or settled village life anywhere in the world before about 9000 BC. The other half of the field argues for village life substantially earlier than this. This debate over the origin of agriculture and village life is not a Bible/science debate. It is simply a debate within the field of Archaeology about how the evidence should be understood. It is fair to argue that a good case can be made both for and against the view of village life defended in the climatological model for interpreting Genesis 1-11.

A third chronological problem centers on the age of the human race. The climatological model suggests that the human race is only 12,000 years old. This conflicts markedly with almost every position defended by archaeologists and paleontologists. It is fair to ask whether the evidence for the origin of human life can actually be interpreted in terms of this model. Of course, bones are very highly chemically reactive with their environment. So very old bones are quite difficult to date with any certainty whether they are dated with radiocarbon dating, thorium dating, or amino acid racemization. Often ancient bones are dated by suggesting dates for the rock layers above and below the deposits within which they are found. However, dating methods used for rock layers are also rather highly problematic. So whether *homo sapien* bones can

¹ James A. Sauer, "A New Climatic and Archaeological View of the Early Biblical Traditions," 365-398 in Michael D. Coogan, et al, eds. *Scripture and Other Artifacts: Essays on the Bible and Archaeology in Honor of Philip J. King*, (Louisville, KY: Westminster John Knox, 1994), 367-369.

actually be proven to predate 10,000 BC is a rather difficult evidential question, and each author's presuppositions are likely to play a key role in the conclusions reached.

Exegetical Problems with the Climate Change Model

The climatological model for interpreting Genesis 1-11 also must face a number of exegetical challenges. First, the model assumes an old earth interpretation of Genesis 1-11. While a number of old earth interpretations have been proposed for Genesis, none are without significant problems. It is unlikely that the climatological model will be found attractive by those who defend a young earth view of Genesis 1-11, unless the evidence is significantly reinterpreted. It may be that Genesis 1 could be interpreted as a Mosaic polemic against Egyptian theology since passages like Ezekiel 20 described Israel's idolatry in Egypt.

Another exegetical problem with the climatological model is that it suggests that Noah's flood was limited to the ancient Near East. The model assumes that Noah's flood destroyed all of human life, but did not cover all the land on the surface of the earth. This is out of keeping with the traditional understanding of the Genesis text and with current evangelical flood geology models. Noah's flood has been a very difficult topic of debate within the evangelical world, and a wide variety of rather unlikely models have been suggested to explain it. Young earth authors have tended to see evidence for a global flood in the earth's geology and its fossil record.² Evangelical authors who are not committed to a young earth model have tended to see the geological evidence in a very different way. Daniel Wonderly and Davis Young have written discussions of the difficulties that flood geologies must face.³ It is possible that the Genesis text itself may have been poorly understood.⁴

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Duane T. Gish, *Evolution: The Challenge of the Fossil Record*, (El Cajon: Creation-Life Publishers, 1985), 51.

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Daniel E. Wonderly, *Neglect of Geological Data: Sedimentary Strata Compared with Young-Earth Creationist Writings*, (Hatfield: Interdisciplinary Biblical Research Institute, 1987). Davis Young, "Scripture in the Hands of Geologists," *Westminster Theological Journal* 49 (1987): 1-34, 257-303. Davis Young, "Some Practical Geological Problems in the Application of the Mature Creation Doctrine," *Westminster Theological Journal* 35 (1973): 268-280.

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Gen. 7:19 claimed that every high *har* under the *shâmayim* was *kâcâh*. This verse has often been interpreted to mean that the waters of Noah's flood were deep enough to submerge every mountain on earth. Many of those who are committed to a young earth and a deep global flood will simply assume that the Hebrew text must be interpreted this way and find no other interpretation very attractive. The Hebrew text might not refer to a global flood at all. The Hebrew word *har* can mean mountain, but it can also refer to elevations of any height including small hills. The Hebrew word *kâcâh* can mean covered. It can as easily mean clothed, concealed, hidden, or overwhelmed. All of these ideas are related to the root idea of covering. The range of usage of these words suggests a few possible interpretations for Gen 7:19. One possibility is that during the forty day storm that caused Noah's flood, the far mountains had been hidden from view by clouds and rain. Another possibility is that a relatively shallow flood had occurred in the mountains as well as the valleys. An Egyptian hymn to the sun god Aten is quite interesting in this regard. The hymn was written during Egypt's Amarna Age, shortly after Joshua died. The hymn claimed that Aten had made a Nile river in heaven that resembled the Nile on earth. The heavenly Nile produced rain that fell on the earth's mountains. The hymn claimed that the rain from the heavenly Nile had created waves in the mountains that resembled the waves of the Mediterranean Sea. The hymn noted that the water from these waves was eventually used to irrigate fields and settlements. Vincent Arieh Tobin, "Amarna and Biblical Religion," in Sarah Israelite-Groll, ed, *Pharaonic Egypt: the Bible and Christianity*, (Jerusalem: Magnes Press, 1985), 236. This is interesting because it located the waves of the great deep upon the mountains, but the waves formed a flash flood instead of a global flood. If this is accepted as a parallel, perhaps the flood waters of Noah's flood covered the high *har* because the flood waters were found in the mountains as well as in the valleys.

A third exegetical problem concerns the limits of the culture gathered at the Tower of Babel. The Genesis text has often been interpreted to suggest that the whole world was a consistent culture. The climatological model suggests that the Genesis text was only intended to describe events in the ancient Near East. It may be fair to argue that the words "all the earth" in Genesis 11:1 could be understood in the same way that these words must be understood in Genesis 41:57. Moses claimed that the famine was severe in all the earth, and all the earth came to Egypt to buy food. This can hardly be taken as a claim that the population of China, Europe, and the Americas came to Egypt to purchase food. "All the earth" in Genesis 41:57 must refer to the Near East. It is less clear whether the *'erets*, or earth, of the flood account could have been the same limited *'erets* in Genesis 41:57.

A different kind of explanation may also be possible. The *har* covered by the flood might have been worship sites instead of mountains. Authors like Meredith Kline have suggested that the Garden of Eden was the earth's first holy mountain sanctuary. Meredith G. Kline, *Kingdom Prologue*, Meredith G. Kline, 1993. Howard N. Wallace, *The Eden Narrative*, (Atlanta: Scholars Press, 1985), 88. The strongest evidence for this can be found in Ezek 28:11-16. Kalman Yaron, "The Dirge over the King of Tyre," *Annual of the Swedish Theological Institute* 3 (1964): 28-57. Herbert G. May, "The King in the Garden of Eden: A Study of Ezekiel 28:12-19," 166-176 in Bernhard W. Anderson and Walter Harrelson, eds. *Israel's Prophetic Heritage*, (New York: Harper & Brothers, 1962). H. J. Van Dijk, *Ezekiel's Prophecy on Tyre*, (Rome: Pontifical Biblical Institute, 1968). While this was a complicated prophecy, it identified Eden as the holy mountain of God, the place of gold and stones of fire. After Adam and Eve were driven from the garden, they carried with them the idea that God should properly be worshiped on mountain tops. From Genesis to Revelation, Scripture is full of descriptions of mountain top worship places and man made elevations used as worship sites. The ancient Near East was also full of holy mountain worship places. Many of these were theologically defined at great and high mountains, even though they were only man made structures in the valley. Sjöberg and Bergmann, *The Collection of the Sumerian Temple Hymns*. An example of this would be the ziqqurats of Mesopotamia. According to the temple hymns preserved after 2300 BC, these ziqqurats were claimed to be high mountains that filled the whole earth, even though they were only relatively small structures. Only a limited river valley flood may have been required, if the "har" covered by Noah's flood were the idolatrous worship sites in use before the flood.