

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

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CHAPTER 3: GENESIS 1-11 AND MESOPOTAMIAN HISTORY

Post-Flood History

After the end of the Younger Dryas, human populations slowly spread rapidly across the world.¹ Noah's family established an agricultural life style. They lived in a tent and grew grapes. Noah became drunk on the wine of his vines, and exposed himself before his family. Noah's son Ham mocked his father, while his sons Shem and Japheth treated him with respect and covered his nakedness. When Noah became sober, he knew what had happened. He made a prophecy that would shape Israel's history until the end of time. Noah pronounced a curse not on Ham, but on Ham's son Canaan. Noah decreed that Canaan's descendants should serve Shem's descendants, and that Japheth should dwell in Shem's tents. So Shem was given rightful authority over all of Noah's descendants. Shem's descendants became the East and West Semitic peoples. For much of their history, Shem's descendants followed a semi-nomadic life style. They founded rather few cities, although they often lived in cities founded by others. The West Semitic peoples would eventually give rise to Abraham and the Israelites. The conflict that Noah began in Genesis 9:25-27 would lead eventually to Israel's conquest of Palestine.

If Noah's flood was associated with the end of the Younger Dryas somewhere around 8200 BC, it is not surprising that this period was followed by a millennium of relative silence in the archaeological record. It took time for the human population to grow large enough to spread across the region and to leave significant archaeological remains. Perhaps not surprisingly, the great river valleys were largely avoided by human populations for a millennium after the great floods.

By 7000 BC, farming was becoming common in many areas of the ancient Near East.² Wild wheat and barley were being planted in Turkey. Between 7000 BC and 6000 BC, farming communities in southwestern Anatolia and Greece were raising sheep, goats, and pigs.³ The earliest farming villages in northern Iraq appeared between 7000 and 5000 BC. Çatal Hüyük in Anatolia (modern Turkey) may have been occupied as early as 6700 BC, although that date has been debated.⁴ Jarus Zarins argued that pastoral nomadism had appeared in the ancient Near East

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Kimball Banks suggested that the Central Sahara was inhabited after 8000 BC. This period marked the beginning of the period of greatest rainfall in the Sahara. Kimball M. Banks, *Climates, Cultures, and Cattle: The Holocene Archaeology of the Eastern Sahara*, (Dallas: Southern Methodist University, 1984), 2.

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Doeke Eisma, "Stream Deposition and Erosion by the Eastern Shore of the Aegean," 67-81 in William C. Brice, ed. *The Environmental History of the Near and Middle East Since the Last Ice Age*, (New York: Academic Press, 1978), 76. Alfred Haldar, *Who Were the Amorites?* (Leiden: E. J. Brill, 1971), 33-35. Haldar discussed evidence raised by Mortensen, Raikes and Dyson on the subject. P. Mortensen, "On the Chronology of Early Village Farming Communities in Northern Iraq," *Sumer* 63 (1961): 73-80.

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Eisma, "Stream Deposition and Erosion by the Eastern Shore of the Aegean," 76. See also the discussion in Davis A. Young, "The Antiquity and the Unity of the Human Race Revisited," *Christian Scholar's Review* 24 (1995): 380-396.

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Jack Finegan suggested a date of 6700 BC in his book *Archaeological History of the Ancient Middle East*, (New York: Barnes & Noble, 1979), 85. On the other hand, Robert Ehrich claimed that the earliest dated level at Çatal Hüyük radiocarbon dated to 6385 BC, give or take 101 years. Robert W. Ehrich, *Chronologies in Old World Archaeology*, (Chicago: University of Chicago Press, 1954), 124.

by the end of the 7th millennium BC. It appeared in semi-arid regions that he claimed had been largely empty of population for three millennia. Zarins argued that these pastoral nomads contributed strongly to the settlement of Akkad, the Semitic region of northern Mesopotamia. Zarins suggested that these pastoral nomads may have begun their rise to political dominance in northern Mesopotamia as early as the Protoliterate period.⁵

W. G. Lambert made an interesting point about the religious artifacts found at Çatal Hüyük. He noted that objects found there resembled a mother goddess figure and possibly a bull god. Lambert argued that religious myths did not develop gradually in the ancient Near East. Instead, they existed at the earliest settlement levels. Lambert argued that the history of the ancient Near East recorded the gradual running down of an ancient mode of thinking that dated all the way back to the prehistoric era.⁶ Lambert was certainly not an evangelical. He saw the Old Testament account as containing mythical material. However, his basic point has some validity. The history of the ancient Near East did see the gradual loss of truth that was originally known among Noah's earliest descendants. Already at Çatal Hüyük, human culture was descending into idolatry.

Around 6000 BC, Mesopotamia, the Nile valley, and the Indus valley were first re-settled. It is unclear why the river valleys were not settled before this. It may be that memories of the great flood made people hesitate to inhabit a flood plain. It was once popular to argue that the valleys were just too swampy to inhabit before 6000 BC. Recent climate change studies have suggested a better reason why the river valleys were first re-settled around 6000 BC. The years between 6200 BC and 6000 BC saw a brief return to cold and drought conditions.⁷ Marginal areas like the Iranian plateau were emptied of population at this time.⁸ The river valleys may have been settled after 6000 BC simply because water could be found there.

The earliest settlements in Mesopotamia belonged to the Hassuna and Samarra cultures. Little is known about the ethnic background of these earliest inhabitants of Mesopotamia, and it is unclear whether specific ethnic groups had even developed in the ancient Near East at this time. These were Neolithic cultures, using obsidian weapons and crude pottery.⁹ Neolithic settlements were not uncommon across the ancient Near East at this time. Wreschner discussed a Neolithic

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Juris Zarins, "Early Pastoral Nomadism and the Settlement of Lower Mesopotamia," *Bulletin of the American Schools of Oriental Research* 280 (1990): 54-56.

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W. G. Lambert, "Old Testament Mythology in its Ancient Near Eastern Context," *Supplements to Vetus Testamentum* 40 (1986): 124-143.

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D. C. Barber et al, "Forcing of the Catastrophic Drainage of Laurentide Lakes," *Nature* 400 #6742 (1999): 344-348. Barber et al suggest that this drought happened in the North Atlantic region because the Laurentide glacial lakes began draining into the Hudson Strait instead of draining southeast into the St. Lawrence estuary. This change had a rather brief but profound impact on the northern hemispheric climate system.

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M. H. Ganji, "Post-Glacial Changes on the Iranian Plateau," 149-163 in William C. Brice, ed. *The Environmental History of the Near and Middle East Since the Last Ice Age*, (New York: Academic Press, 1978), 156.

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Jack Finegan, *Light from the Ancient East*, (Princeton: Princeton University Press, 1946), 13-14.

settlement in Palestine near Neve Yam. Wreschner argued for a 5000 BC date for the settlement although that date is at best somewhat uncertain.¹⁰

The Hassuna and Samarra cultures were followed by the Ubaid culture which began after 5200 BC. Samuel Kramer argued that Semitic nomads from Syria and Arabia immigrated into Mesopotamia during the Ubaid period. Kramer argued that these Ubaid immigrants had entered Mesopotamia with an established religious tradition. If so, Shem's descendants may have made up part of the Ubaid culture.¹¹ Since the believing tradition was largely preserved among Shem's descendants, some of the earliest inhabitants of Mesopotamia may well have still known the true God. However, the dominant religion in the valley would already have become idolatry. Kramer argued that the population of Mesopotamia believed that each city was protected by only one god. He argued that the city deity was originally worshiped at a small shrine with a table and altar.¹²

Ubaid period settlements in Mesopotamia were built on virgin soil, so they were the earliest settlements at their sites.¹³ The Ubaid culture survived for quite a long time. It was a sparsely settled, rural, agricultural culture that included small villages and scattered settlements.¹⁴ Since the Ubaid period lasted for so long, it has become convenient to subdivide it into several smaller time periods. The earliest part of the Ubaid period is represented by the Halaf culture in the northern part of Mesopotamia. The Halaf culture in the north spread rapidly across a large part of Mesopotamia, Anatolia and the Levant (which is Syria and Palestine). It was a high culture with beautiful and detailed pottery. It also used rather advanced forms of agriculture.¹⁵

After 4800 BC, the Halaf culture in Mesopotamia was replaced by a later phase of the Ubaid called the Eridu culture. With the rise of the Eridu culture, the center of population and civilization moved from the northwest end of the valley to the southeast end of the valley. This

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Ernst. E. Wreschner, "The Submerged Neolithic Village 'Neve Yam' on the Israeli Mediterranean Coast," 325-333 in P. M. Masters and N. C. Flemming, eds. *Quaternary Coastlines and Marine Archaeology: Towards the Prehistory of Land Bridges and Continental Shelves*, (London: Academic Press, 1983), 329. The uncertainty of dating Neolithic sites can be seen in C¹⁴ dates from Tell Hammam et-Turkman. Charcoal from phase IV B at this site has produced C¹⁴ dates of both 4160 BC and 8330 BC. For the data, see Peter M. M. G. Akkermans, "An Updated Chronology for the Northern Ubaid Periods in Syria," *Iraq* 50 (1988): 130.

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There has been substantial debate about the origin of the Ubaid culture. Frankfort, Akkerman, and Le Mièrè argued that the Ubaid people came originally from Iran. Oates argued strongly against this explanation for their origin. Henri Frankfort, *Archaeology and the Sumerian Problem*, (Chicago: University of Chicago Press, 1932), 18-19. Peter M. M. G. Akkerman and Marie Le Mièrè, "The 1988 Excavations at Tell Sabi Abyad, a Later Neolithic Village in Northern Syria," *American Journal of Archaeology* 96 (1992): 1-22. Joan Oates, "Eridu and the Sumerian Problem," 126-133 in Tom Jones, ed. *The Sumerian Problem*, (New York: John Wiley & Sons, 1969), 129.

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Samuel Noah Kramer, *From the Poetry of Sumer: Creation, Glorification, Adoration*, (Berkeley: University of California Press, 1979), 54-55.

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Uruk was a very important site. It was the Ereck of Gen. 10:10. It is often called Warka in academic literature.

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Robert McC. Adams and Hans J. Nissen, *The Uruk Countryside: The Natural Setting of Urban Societies*, (Chicago: The University of Chicago Press, 1972), 6-9.

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N. Y. Merpert and R. M. Munchaer, "The Earliest Levels at Yarim Tepe I and Yarim Tepe II in Northern Iraq," *Iraq* 49 (1987): 1-36. Peter M. M. G. Akkerman, "An Updated Chronology for the Northern Ubaid and Late Chalcolithic Periods in Syria: New Evidence from Tell Hammam et-Turkman," *Iraq* 50 (1988): 109-146.

would seem to be consistent with Genesis 11:1-2. Genesis recorded that men moved east into the land of Shinar before the Tower of Babel was built. As the Eridu culture moved east to the region of Shinar, villages like Uruk, Ur, and Eridu became more important. Crown and Mellaart suggest that this culture was based on improved irrigation. This irrigation produced a surplus of population which enabled the Ubaid culture to spread across Mesopotamia.¹⁶

This may have happened in the days of Shem's descendant Peleg. Genesis 10:25 noted that in his days, the land was divided, irrigated, or canalled, depending on how the verb *palag* is translated.¹⁷ Irrigation may have provided an economic basis for the earliest civilizations in the ancient Near East. Irrigation required both political organization and social differentiation. These factors produced economic prosperity and led to the rise of a centralized culture.¹⁸ Moses may have chosen to record the advent of irrigation in Peleg's time because it marked a parting of the ways between the settled population descended from Ham and the semi-nomadic population descended from Shem.¹⁹ Jarus Zarins pointed to the presence of a Semitic population of semi-nomadic people in Mesopotamia at this time.²⁰ Shem's descendants in Mesopotamia may well have been in tension with the rising idolatry in Mesopotamia. Evidence for this rising idolatry can be seen in the earliest level of the ziqqurat at Eridu.²¹

Uruk and a Tower to Heaven

Jack Finegan noted that the next phase in Mesopotamian history lasted from 3500 BC to 3100 BC. It was centered at the city of Uruk. The Uruk period began around 3500 BC as climate conditions improved in southeast Mesopotamia. Oak forests spread through the mountains north of Mesopotamia, and severe floods struck cities in the valley.²² During the Ubaid period, the

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Alan D. Crown, "Climatic Change, Ecology and Migration," *Australian Journal of Biblical Archaeology* 1 (1971):

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Gen. 10:25 has often been translated to suggest that in Peleg's day the earth was divided. This translation has been interpreted in unusual ways including allusions to continental drift. The Hebrew noun *'erets* can mean either earth or land. The verb *palag* can mean divide. However, a survey of the cognate languages reveals that the verb was also used to mean engrave or dig canals. In the cultural environment of the ancient Near East, it makes far more sense to suggest that in Peleg's day the land was canalled or irrigated than to suggest that the earth was somehow divided. See the discussion in: David M. Fouts, "Peleg in Gen 10:25," *Journal of the Evangelical Theological Society* 41 (1998): 17-22.

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Karl W. Butzer, "Perspectives on Irrigation Civilization in Pharaonic Egypt," 13-18 in Denise Schmandt-Besserat, ed. *Immortal Egypt*, (Malibu: Undena, 1978), 13-18.

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See the discussion in Fouts, "Peleg in Gen 10:25," 17-22.

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Zarins argued that the Akkadians, or Kishites, were a Semitic population of semi-nomads. Zarins suggested that they had entered the valley from the western desert in the late fourth or early third millennium BC. Zarins, "Early Pastoral Nomadism and the Settlement of Lower Mesopotamia," 54-56.

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The great Eridu ziqqurat would later rise on the site of a small temple built in this age. The bottom temple layer of the ziqqurat at Eridu contained fragments of a kind of pottery called Eridu ware. This kind of pottery was in common use in Mesopotamia between 5000 BC and 4300 BC.

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Alan D. Crown, "Climatic Change, Ecology and Migration," *Australian Journal of Biblical Archaeology* 1 (1971): 15.

earliest occupation levels at sites around Uruk had been small, scattered villages that were only occupied for a short time. The earliest settlements around Uruk suggest that the population of the region was very sparse and widely scattered.²³ The pre-historic sites around Uruk also had a highly consistent culture. This should not be surprising. During the Ubaid period, human populations were still being re-established after the flood. So the population in the ancient Near East as a whole was quite limited. Also, the center of population during the Ubaid period was in the northwestern part of Mesopotamia, rather far from Uruk. All of this changed during the Uruk I period. The Early Dynastic I period at Uruk saw the largest city population ever to exist at Uruk. The city grew at the expense of the countryside. Whole districts around Uruk were depopulated as people poured into the cities. The increased urbanization at cities like Uruk produced the first centrally administered kingdoms in Mesopotamia. Sites near Uruk saw this great increase in urbanization much earlier than sites near Ur or Eridu.

Karl Butzer argued that irrigation agriculture was the economic base for civilizations like the 1st Dynasty at Uruk. Irrigation allowed high intensity agriculture to develop. With a large food supply, it was possible for large populations to exist within a reasonable distance of a central worship and administrative site. Archaeological and historical evidence links the rise of irrigation agriculture to the rise of social stratification and to the development of complex economies. A strong central government was needed to create and maintain the irrigation systems that supported the city economies.²⁴

The construction of the Anu ziqqurat at Uruk was well underway by this time.²⁵ A total of two dozen ziqqurats were eventually built throughout Mesopotamia. Jack Finegan suggested that the ziqqurat at Uruk was the earliest of these ziqqurats.²⁶ The ziqqurats were great centers of both worship and education. The Uruk period was a literate era from beginning to end. The earliest large collection of written texts to have survived was written at this time. Between 500 and 600 tablets were found at Uruk that were written after 3200 BC.²⁷ William F. Albright

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McC. Adams and Nissen, *The Uruk Countryside*, 6-9.

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Butzer, "Perspectives on Irrigation Civilization in Pharaonic Egypt," 13. McC. Adams and Nissen, *The Uruk Countryside*, 11, 87-88. Elizabeth F. Hendrickson, "The Early Pastoralism in the Central Zagros Highlands (Luristan)," *Iranica Antiqua* 20 (1985): 41.

25

McC. Adams and Nissen, *The Uruk Countryside*, 11, 87-88. Ziqqurats were continually rebuilt and enlarged. When they were rebuilt, a wall was erected around the old structure. The area within this wall was filled with dirt. The resulting structure was then used as the base for a much larger temple. The process resulted in a stepped temple tower. The ziqqurat at Eridu was rebuilt and enlarged in this way 18 times. As they were enlarged, they were rebuilt according to the laws and ordinances of the ziqqurat at Eridu. E. Douglas Van Buren, "Foundation Rites for a New Temple," *Orientalia* 21 (1952): 293-306.

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Finegan, *Light from the Ancient East*, 19-20.

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Joan Oates, "Ur and Eridu, the Pre-History," *Iraq* 22 (1960): 32-50.

suggested that the similarities between East and West Semitic poetry may date all the way back to this time period.²⁸

All of this sounds remarkably like Genesis 11:1-9. In this passage, the population of Mesopotamia had moved east across the valley floor to the land of Shinar which was the southeastern part of the valley. The rise of an empire and tower in Shinar could then correspond with the 1st Dynasty at Uruk, when rural populations were being replaced by organized city cultures.²⁹ The early sanctuary at Uruk was being rebuilt into one of the first ziqqurats that Mesopotamia was to know. Ziqqurats were also being expanded in cities like Babel at this time.

God sent His special presence down to Shinar to see the city and temple tower that the Uruk culture had built.³⁰ By confusing their language, God limited man's ability to found an empire opposed to Him, and God scattered the population. The confusion of tongues might refer in part to the Sumerian immigration into the valley. After the Sumerian immigration, Mesopotamia would never again know a consistent culture and language. The Sumerian period in Mesopotamia began in roughly 2900 BC. The Sumerians claimed to have moved into southern Mesopotamia from a land named Dilmun.

Surprisingly, there is even a Sumerian text from Mesopotamia that seems to describe the end of the Uruk period. This text is often called *The Epic of Enmerkar*. It records that at one time there were no dangerous animals on earth. All men were united in one culture, and all men praised the god Enlil with a single language. The epic claims that god Enki confused man's language and caused dissention between men.³¹ So this text may very well point back toward the same time period as the Tower of Babel account.

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William F. Albright, "The Role of the Canaanites in the History of Civilization," 328-362 in G. E. Wright, ed. *The Bible and the Ancient Near East*, (New York: Doubleday, 1961), 339. Alfred Haldar had argued that an immigration of Semitic people had entered Mesopotamia either at the same time as the Sumerians, or earlier. Haldar, *Who Were the Amorites*, 4-5.

29

It is unclear how much of the earth's human population was gathered around the tower. Dale DeWitt noted that the Hebrew word *eretz* can mean land as easily as earth. If translated as land, perhaps only the inhabitants of Mesopotamia were gathered at the tower. Dale S. DeWitt, "The Historical Background of Genesis 11:1-9: Babel or Ur?" *Journal of the Evangelical Theological Society* 22 (1979): 15-26. DeWitt suggested that the Tower of Babel account should be dated at the end of the Ur III period. This would seem to be too late a date. Several languages had been in use in Mesopotamia for a thousand years before this time.

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Patrick Miller noted that Gen. 11:1-9 differed in an important way from Mesopotamian texts. In Mesopotamia, the gods decreed the construction of cities. In Genesis, God opposed and prevented the rise of cities. Genesis interpreted the first city as a direct revolt against God's decree. Patrick D. Miller Jr. "Eridu, Dunnu, and Babel: A Study in Comparative Mythology," 143-168 in Richard S. Hess and David Toshio Tsumura, eds. *I Studied Inscriptions from before the Flood*, (Winona Lake: Eisenbrauns, 1994).

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Samuel Noah Kramer, "The 'Babel of Tongues': A Sumerian Version," 278-282 in Richard S. Hess and David Toshio Tsumura, eds. *I Studied Inscriptions from before the Flood*, Winona Lake: Eisenbrauns, 1994.