

# Noah, Gilgamesh, and the Black Sea Flood

a theological reflection by Sheila T. Harty, 2006  
based on *Noah's Flood* by William Ryan & Walter Pitman, 1998

A history course on Ancient Civilizations enthralled me as a 17-year-old college freshman. My polyglot professor Dr. Gessman—who knew 23 languages—told us about an ancient text, written a thousand years before the *Book of Genesis*, which relates a flood that covered the earth and wiped out humanity. Other details in this *Epic of Gilgamesh* were reminiscent of the Noah story.<sup>1</sup>

I remember the effect of this parallel on me. If Noah's flood is not unique to *Genesis*, then the flood loses its God-forsaken meaning. What was credited as divine retribution is exposed as a natural—though catastrophic—event. Far from dismissing scripture as myth from that time on, scripture instead took on a multidimensional depth for me. Beyond mere religion, scripture became a telescope for history, philology, linguistics, anthropology, archeology, and geology.

Forty-some years later, a UU member recommended the book *Noah's Flood* by two marine geologists.<sup>2</sup> A great read! I want to share their archeological discoveries before the next flood comes—although as James Baldwin warned: “*the fire next time.*”<sup>3</sup> Yet another flood will come—has come: in Pakistan, Australia, Brazil, Sri Lanka, and the Philippines—not because mankind is so sinful (*though that's more true than ever*) nor because we might be similarly punished (*though that's never a flood's intent*), but because equivalent geo-meteorological conditions are in process. Yes, I mean global warming and oceans rising.

## The Flood Myth

The flood story in *Genesis* is neither a myth nor the revealed word of God. Rather, the story reflects a cultural memory of a catastrophic flood. By drastically altering the landscape, the flood forced a diaspora “*that changed human history.*”<sup>4</sup> Noah's flood is only one of many flood stories diffused throughout the Near and Middle East. To retort the obvious—that floods are frequent throughout the world and time—the Egyptian's lack of a flood myth is interesting, especially given the Nile's history of flooding.

Common elements appear in these flood stories, although not all elements appear in all stories. Here are some of the striking similarities with their intriguing variations:

- number of days it rained—40, 10, 9, 7, 6, and 1.
- water covered the earth in one story, the water rose from the earth in another;
- the flood was punishment by the gods
  - sometimes for wickedness, or overpopulation, or making too much noise, or for no reason;
  - sometimes one god, or many gods, or one against many, or many against one;
- boat built to specifications—sometimes a cube, a square, a rectangle, or specific height and length;
- certain people and animals chosen to be on the boat:
  - animals not always in pairs, sometimes all animals, or only specific animals, or no animals;
  - survivors were usually man and wife, sometimes a family, and sometimes a man alone;
- boat lands on top of a mountain—although the mountains had different names in each story;
- a bird sent out to find land—sometimes a dove, a raven, a sparrow, or all three sequentially;
- once on dry land, survivors sacrificed to the gods, usually an animal sacrifice, once a turtledove.

<sup>1</sup> *Genesis* 6:5 – 9:19.

<sup>2</sup> William Ryan and Walter Pitman, senior scientists with Lamont-Doherty Earth Observatory, the Earth Institute at Columbia University, Palisades, New York.

<sup>3</sup> “God gave Noah the rainbow sign. No more rain; the fire next time.”, James Baldwin, *The Fire Next Time* (Doubleday, 1988).

<sup>4</sup> William Ryan and Walter Pitman, *Noah's Flood: The New Scientific Discoveries About the Event that Changed History* (Simon & Schuster, 1998), pg. 230.

## Cultural Variations

The similarities in these flood traditions suggest a common origin with dispersion throughout different cultures. The variations result from oral transmission by pre-literate cultures until “*the first written language, Sumerian cuneiform.*”<sup>5</sup> Indeed, Sumerian is the language of the oldest flood story.

- ▶ A Sumerian fragment of “*The Deluge*” (3300 BCE) had Ziusudra alone in a big boat because some gods sent a flood to destroy humanity (no reason was given), but the sun god Utu shined on the boat, and Ziusudra was sent to live in a mythical paradise.
- ▶ The Akkadian “*Epic of Gilgamesh*” (2300 BCE) is a long legend with a short flood story told to Gilgamesh by Utnapishtim who survived the flood with his wife and so were granted immortality. The god Ea warned him to build a boat, cube-shaped, which carried the seed of all living creatures. The bird scouts were a raven, then a swallow, then a dove.
- ▶ A Phoenician text, “*The Deucalion Flood*” (2000 BCE), had a square boat that landed on Mount Parnassus carrying all living creatures and two humans, Deucalion and his wife.
- ▶ An Assyrian text (1800 BCE) had “*A Great Flood*” that destroyed an overpopulated and noisy earth, after which the gods repented and wept. The god Entil tells Atrahasis to take everything necessary for a new life as they would not return. He and his wife also get immortality. The same bird scouts were sent but in a different sequence.
- ▶ A Babylonian text (1700 BCE) is a close variant of the Assyrian text. The flood was the gods third attempt to deal with human overpopulation: the first attempt was a plague, the second a famine. The chief god, Enlil, sent the flood; the god of wisdom, Enki, saved Atrahasis.
- ▶ A Chaldean variation had the boat land in Armenia and the gods instructed Xisuthrus, who survived the flood, to write a history about it.
- ▶ The Hebrew flood in *Genesis* (800 BCE) was punishment by the one god for sinful humanity with a rainbow promise of “*never again.*” Noah’s ark was a rectangle. The first bird scout was a raven, then a dove, then the same dove that came back with an olive branch, then the same dove again that didn’t come back. Noah took not only his wife but his sons and their wives.
- ▶ Among the Dead Sea Scrolls were fragments of the “*Book of Noah*” (600-200 BCE), which adds little to the flood legend. Also among the Dead Sea Scrolls was the Aramic “*Book of Enoch*,” which adds description of the flood: “*all the foundations of the earth trembled...and all the abysses overflowed with mighty waters...*”<sup>6</sup>
- ▶ Plato’s “*Dialogue of Critias*” (360 BCE) refers to a flood that caused the earth to sink out of sight after a single night of excessive rain, “*and then occurred the extraordinary inundation.*”<sup>7</sup>
- ▶ The Greek poet Ovid wrote “*The Flood*,” Book 1 of his *Metamorphoses* (1<sup>st</sup> century BCE) with only Deucalion and his wife surviving in a little skiff. The god Jove, disgusted with humanity’s immorality, wanted to start again with a new race. Yet Ovid ends his poem: “*but of new monsters, earth created more.*”<sup>8</sup>

The Deluge was so significant that it divided these cultures' histories into antediluvian and postdiluvian.

## The Dynamics of Storytelling

Understanding the dynamics of oral history is essential for associating the flood traditions with a real geological catastrophe. Critics too easily dismiss all oral traditions as mythic, as if history is only

<sup>5</sup> Ashley Montagu, *Man: His First Million Years* (New American Library, 1957), p. 116.

<sup>6</sup> Geza Vermes, editor, *The Complete Dead Sea Scrolls in English* (Penguin, 1997), pg. 513-522.

<sup>7</sup> Translation by Benjamin Jowett.

<sup>8</sup> F.R.B. Godolphin, editor, *Great Classic Myths* (Random House, 1964), pg. 21.

reliable from written records. In the evolution of language within culture, oral history has a complex style that is reliably stronger than written documents at the earlier historical end.<sup>9</sup>

Indeed, writing was not at first intended for reading. Writing was initially restricted to recordkeeping. The instructive and entertainment uses of language were left to storytelling. The Hebrew Scriptures arose in a world predominantly oral.<sup>10</sup> For centuries, writing in the ancient Near East imitated oral styles, as evident in Assyrian and Babylonian inscriptions.<sup>11</sup> Babylonian oral patterns are pervasive throughout the Near East and lie behind much scriptural literature.<sup>12</sup> In the transition from oral to written history, the interplay back and forth wove a local story into a larger narrative. Even when literacy was achieved, it was only by a small proportion of the cultural opus. The oral tradition was the reservoir of history.

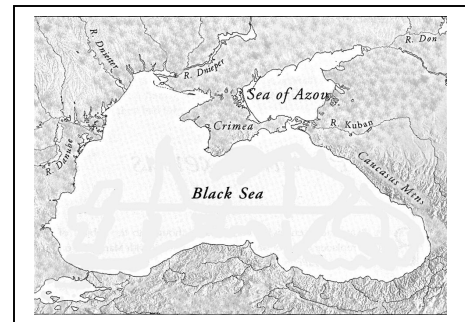
The oral tradition uses an economy of symbols and a repertoire of shared references<sup>13</sup> marked by repeated elements as mnemonics (memory aides) along with patterns, rhythms, rhymes, and a narrative framework. Near Eastern oral traditions had only to suggest a familiar pattern for its meaning to be recognized by the listener.

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Let me now relate the hydroarcheological catastrophe that geologists believe is behind these flood traditions. “Using the tools of the ocean sciences, climatology, radio-carbon dating, anthropology, genetics, and linguistics,”<sup>14</sup> the two marine geologists William Ryan and Walter Pitman tell a better tale.

## The Black Sea Environs

The Black Sea is a huge basin more than 6,000 feet deep located just north of Turkey. The Turks of the Middle Ages named it *Karadeniz*, “harbinger of death.”<sup>15</sup> Pliny the Elder, in the 1st century CE, named it *Pontus Axenus*, for “inhospitable.”<sup>16</sup> Later, it was called *Pontus Exinus* or the Exuine Sea.



Numerous large rivers feed into the Black Sea: *The Danube* starting in the Black Forest Mountains of Germany, *The Dniester* from the Ukraine through Moldova, *The Dnieper* from southwest Russia through Belarus and the Ukraine, and *The Don* southeast of Moscow through Russia.

The Black Sea’s only outlet is through two narrow straits flowing, in tandem, into the Mediterranean: the southernmost Dardanelles (38 miles long, ¾ mile across at its narrowest, 4 miles at its widest); and the northernmost Bosphorus (19 miles long, less than ½ mile at its narrowest, just over 2 miles at its widest). Between the two straits is the small Sea of Marmara.

A unique feature of the Black Sea is its two distinct layers of water. The top layer is half as salty as an average sea, because it is diluted by all that river water. Beneath this layer is cold, heavy salt water.<sup>17</sup> Virtually all the free oxygen in this bottom layer has disappeared. Not only are no fish in this lower layer, but even bacteria cannot survive down there.<sup>18</sup>

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<sup>9</sup> Susan Niditch, *Oral World and Written Word: Ancient Israelite Literature* (John Knox Press, 1996).

<sup>10</sup> John Van Seters, “Review of Oral World and Written Word,” *The Journal of the American Oriental Society*, July 1, 1998.

<sup>11</sup> Rosalind Thomas, *Literacy and Orality in Ancient Greece* (Cambridge University Press, 1992), pp 29-51.

<sup>12</sup> Niditch.

<sup>13</sup> The terms were actually “esthetic metonym” and “immanent referentiality.” John Miles Foley, *Immanent Art: from Structure to Meaning in Traditional Oral Epic* (Indiana University Press, 1991).

<sup>14</sup> Ryan and Pitman, pg. 57.

<sup>15</sup> Ryan and Pitman, pg. 103.

<sup>16</sup> Ryan and Pitman, pg. 103.

<sup>17</sup> “Black Sea Boats,” *Archeological Diggings Magazine*, March 2001.

<sup>18</sup> *Archeological Diggings*.

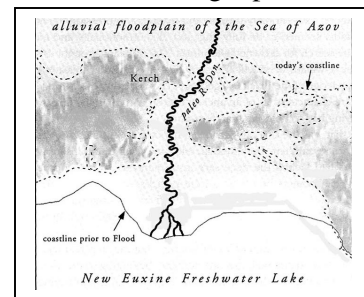
Two layers of water are similarly found in the straits' currents between the Black Sea and the Mediterranean. The fresher, lighter waters from the Black Sea flow south on the top layer into the Mediterranean, while the saltier, heavier waters of the Mediterranean flow north on the bottom layer into the Black Sea.<sup>19</sup> This countercurrent is evidence of an ancient underwater river.<sup>20</sup>

## Accumulating Evidence

William Ryan began his flood quest in 1961 as a junior geologist assisting on an expedition into the Bosphorus Strait, sponsored by the Woods Hole Oceanographic Institution. Data from sonar echo soundings indicated that an ancient river on the bottom layer of the strait had been extremely violent, gouging clefts into solid bedrock and more deeply gouged toward the Black Sea.<sup>21</sup> Millennia ago this water had flowed north in a furious torrent that ripped apart the passage.<sup>22</sup>

In 1969, another expedition of Woods Hole geologists, headed by David Ross and Egon Degens, drilled coring samples in the Black Sea itself that showed a layering of the bottom sediments. The top layer of black mud was 50 percent organic carbon, oozing methane and hydrogen sulfide. A lungful of this poisonous gas would kill a person. Thus, the Black Sea's name as a harbinger of death takes on more meaning. Under inspection, this organic goop contained mussels and clam shells. Under high magnification, plankton skeletons and protein membranes were revealed. Below this black goop in the coring samples was gray clay, which when pressed exuded freshwater.

Ironically, Ross and Degens had discovered evidence for an investigative theory that they had not yet conceived. Ryan, in contrast, was investigating a theory but had not yet found the evidence. Then Ryan and his colleague Walter Pitman got an unexpected fax from a Bulgarian oceanologist, who claimed to have "convincing evidence" that the Black Sea was once about 100 meters (328 feet) lower than today<sup>23</sup>—equivalent to a 33-floor building. Ryan and Pitman soon joined the Bulgarian on a Russian expedition into the Sea of Azov, an extension of the Black Sea to the north above the Kerch Strait northeast of the Crimea. The sonar data indicated that the River Don once extended farther south, passing through the strait and crossing the broad dry floodplain, which was now the Sea of Azov, before flowing into the Black Sea. Coring samples extracted algae-encrusted salt-water mollusk shells from a deeply submerged beach. Shells from the lowest layer from five different coring samples were submitted for radio-carbon dating. They all yielded the same date: 5600 BCE. Another expedition obtained similar dates from nine different coring samples. The similarity of the samples' dates suggested a rapid change from a freshwater lake to a saltwater sea.<sup>24</sup>



The oxygen-depleted bottom layer of the Black Sea's heavy saltwater also attracted deep-water explorer Robert Ballard in 1995, since this anaerobic environment could preserve ancient submerged shipwrecks from decay and wood-boring mollusks. Ballard remarked: "*Such conditions exist nowhere else in the world.*"<sup>25</sup> As lead oceanographer for the Black Sea Project,<sup>26</sup> Ballard is confident that deep-water archeology can find shipwrecks, supposedly with sails intact.<sup>27</sup>

Ballard's Black Sea Project was begun long after the two decades of research were underway by Ryan and Pittman, but their findings had not yet come to light nor had the connection to Ross and

<sup>19</sup> *Archeological Diggings*.

<sup>20</sup> Ryan and Pitman, pg. 66.

<sup>21</sup> Ryan and Pitman, pg. 71.

<sup>22</sup> Ryan and Pitman, pg. 72.

<sup>23</sup> Letter of March 19, 1993, from Petko Dimitrov, Bulgarian Academy of Sciences, Institute of Oceanography, Varna, Bulgaria. Ryan and Pitman, pg. 118.

<sup>24</sup> Mark Rose, "Books: Neolithic Noah," *Archeology*, Vol. 52, No. 1, January/February 1999.

<sup>25</sup> Guy Gugliotta, "Trailing Ancient Mariners: Diving for History in Black Sea's Abyss," *The Washington Post*, September 26, 1999, pg. A01.

<sup>26</sup> Funded by the National Geographic Society and the University of Pennsylvania.

<sup>27</sup> *Archeological Diggings*.

Degens' data. Yet in the Summer of 1999, two of the Black Sea Project's underwater surveyors found an ancient coastline at a depth of 450 to 550 feet, just above the anoxic dead zone. Radio-carbon dating of shells associated with this coastline gives an approximate date of 5500 BCE.

There's a synergy now among these studies as they reveal an ancient catastrophe. This story only gets better. Here is Ryan and Pitman's replay of the geological apocalypse.

## A Mesolithic-Neolithic Catastrophe

At the peak of the last Glacial Cycle—when homo sapiens were fully sapien—massive glaciers covered northern Europe and the northern edge of Eurasia. Five million years earlier, the Atlantic Ocean had breached the Gibraltar barrier to level its waters into the then desert of the Mediterranean. But that's another story. But 20,000 years ago, the sea level was some 400 feet lower than today.<sup>28</sup> As the northern glaciers melted, rivers of meltwater flowed south and spilled into the Ice Age lake we know as the Black Sea, creating a giant freshwater lake. Continued melting overflowed into the Sea of Marmara through the Sakarya River valley in western Anatolia and then into the Aegean Sea.<sup>29</sup> The Bosphorus was still a land bridge.

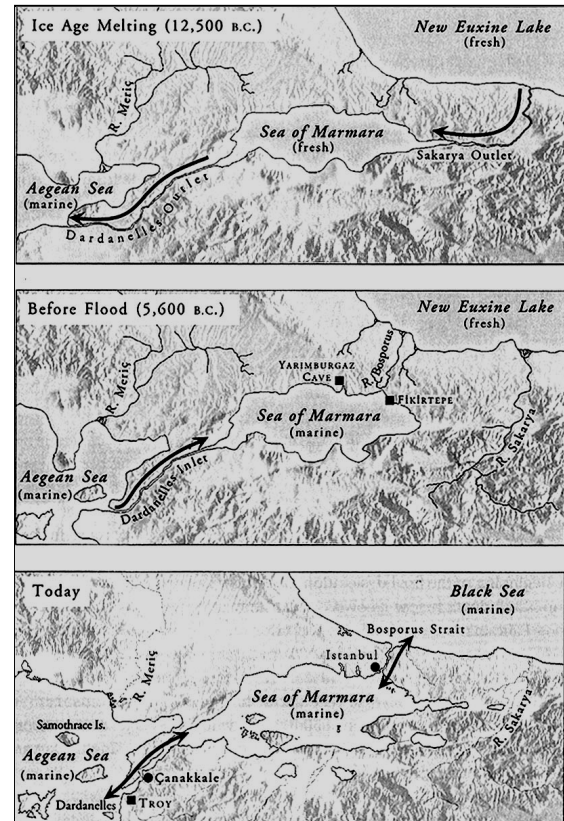
While the glaciers were in full retreat—15,000 years ago—wandering tribes of hunter-gatherers migrated from the Levant and Mesopotamia into Anatolia, west into the Balkans, and east into the Eurasian plain. Roaming herds of game and wild grasses replaced the tundra. Permanent villages began with the cultivation of cereal grains.

Two short glacial periods returned to disrupt these settlements.<sup>30</sup> Glacial climates are extremely dry, producing vast deserts south of the ice sheets. Many of the settled tribes, cut off from a water supply in the extreme aridity of valleys and deltas, abandoned their villages and migrated to the shores of shrunken lakes.

When warmer temperatures and rain returned about 8,000 years ago, most of the glacial meltwater flowed not south into the Black Sea but west across Europe to the North Sea. Cut off from river flow, the Black Sea continued to shrink. Water levels dropped below the Sakarya River valley; outflow into the Sea of Marmara ceased; and the Black Sea became land-locked, dropping well below the Bosphorus land bridge.

Meanwhile, the influx of glacial meltwater continued into the North Sea and then the Atlantic, raising the ocean level. By 5600 BCE, the waters of the Mediterranean and the Sea of Marmara had risen to a height that threatened to overtop the Bosphorus. The Black Sea was then 500 feet lower.

**The breach probably came slowly, at first, with patches of soil eroding from tides and winds, until a trickle became a flow, then a rivulet, cascading down dried gullies, running along old streambeds, scouring channels, and gouging ditches, until the water tore through the Bosphorus to the lake below.**



<sup>28</sup> Ryan and Pitman., pg. 230.

<sup>29</sup> Rose, *Archeology*.

<sup>30</sup> The first was 12,500 years ago and lasted about 1,000 years; the second lasted only 400 years. Ryan and Putman, pg. 232.

**The deeper the water cut, the faster it flowed, probably more than 50 mph.<sup>31</sup> The water each day was two hundred times the flow of Niagara Falls. The level of the lake would have risen six inches a day and moved up the river valleys about a mile a day without pause, hour after hour, day after day.**

## From an Ancient Perspective

Now imagine this scene from the perspective of Middle Stone Age<sup>32</sup> settlers in the villages around the Ice Age lakeshore of the shrunken freshwater Black Sea. Whatever belief systems were current almost 8,000 years ago, glacial melting was not one of them. Most of the flood traditions blame rain, which was the known source of excessive water. The terror of the unknown source of the apocalyptic transformation of their homeland must have felt as if “*the collected fury of all the gods were being hurled at them.*”<sup>33</sup> These late Mesolithic settlers were no longer nomadic hunters and foragers, but farmers and herders who were now invested in the land. The flood meant exile.

Families would have gathered together to flee upstream to the desert plateaus through which the river valleys had been cut. Some Black Sea refugees would have fled up the Danube and the Dniester across Europe. Others would have fled up the Dnieper and the Don across Eurasia. Spreading in an arc from southeast Europe to the Caspian Sea and beyond, many refugees fled with their languages, ideas, and incipient technologies to new settlements elsewhere. The ancestors of the Semitic people climbed the hills across the Anatolian plateau and scattered south across the mountains and deep valleys toward Mesopotamia.

Not surprisingly, the story of Noah’s flood in *Genesis* precedes the story of the Tower of Babel,<sup>34</sup> which was posited as an explanation for the origins of diverse peoples and languages before incorporation into Hebrew scripture.<sup>35</sup> Ryan and Pitman credit the diaspora following the Black Sea flood as the causal factor for what linguistics have pointed out as the strong affinity among Sanskrit, Persian, Greek, Latin, Celtic, and German.<sup>36</sup> What linguists have long identified as the Indo-European proto-language has recently been recognized as branching off in the early fifth millennium<sup>37</sup>—that’s 500 years after the Black Sea flood. One branch is traced into the northern interior of Europe, one to the Mediterranean coast of Europe, another into Central Asia, and another into Anatolia and further south into Mesopotamia.

Some of these Semitic people who escaped south migrated to the foothills of the Zagros Mountains of Persia. Some of them spoke a tongue later known as Sumerian and settled into the alluvial plain between the Tigris and the Euphrates. These people flourished. To tame the waters for their use, they developed canal irrigation. As a result, prosperity created one of the world’s great civilizations: Babylonian. They were a superstitious and fatalistic people with a pantheon of gods for every need and every event. They recorded their history in myth. By 3000 BCE, they had invented writing and immortalized these myths.

## Seeking Equilibrium

Meanwhile, back at the breach, the flood continued long after the people had fled. The flood waters were so rapid that, within a few years, 60,000 square miles were flooded. The flood continued until the level of the lake had crested the old shelf edge of the Bosphorus.

<sup>31</sup> Ryan and Pitman, pg. 249.

<sup>32</sup> Between 6000 and 5800 BCE was the critical time when Neolithic people began to cause changes among Mesolithic people in northwest Europe. Jim Innes, Jeff Blackford, and Peter Rowley-Conway, “The Start of the Mesolithic-Neolithic Transition in North-West Europe—the Palynological Contribution,” *Antiquity*, vol. 77, No. 297, September 2003.

<sup>33</sup> Ryan and Pitman, pg. 235.

<sup>34</sup> *Genesis* 11:1-9.

<sup>35</sup> Bernard W. Anderson, *Understanding the Old Testament* (Prentice-Hall, 1966), pg. 177.

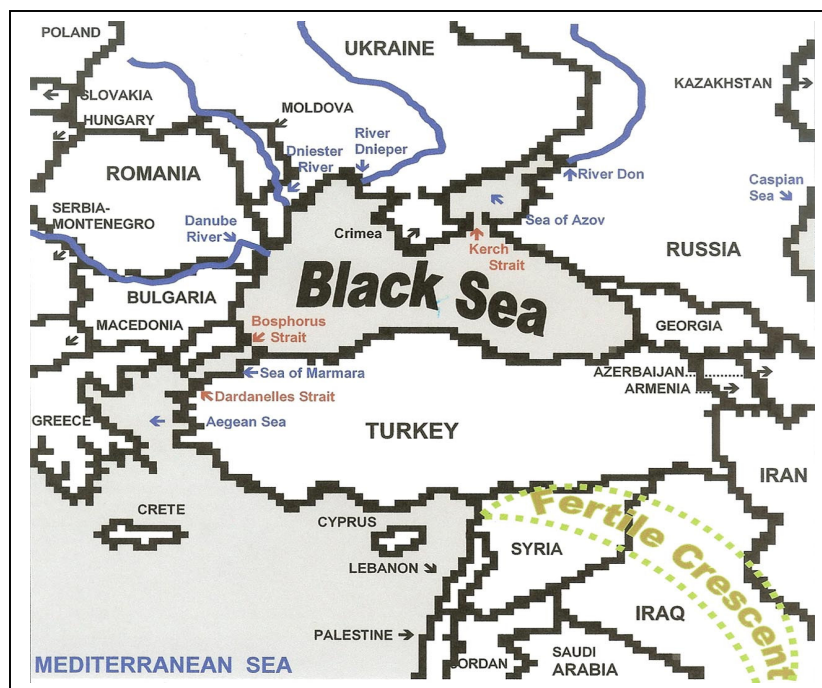
<sup>36</sup> Ryan and Pitman, pg. 208.

<sup>37</sup> Tomas Gamkrelidze, Professor of Linguistics, Tbilisi State University, Republic of Georgia. Ryan and Pitman, pg. 209.

Most of the freshwater fish would have died in the strange salty water. The marine life that flushed in from the Mediterranean would have perished at first, until the maelstrom abated and, once equilibrium was restored, the migrant species could acclimate. With no more waves or tides in this sudden dark depth, the sediments and shells and skeletons of sea creatures sunk to the bottom, covering the lake bed with a uniform layer of soon-to-be black sulfurous organic goop over its underlying layer of gray clay.

After several years, the lake level had risen 330 feet and reached the Azov plain northeast of the Crimea, which humans had long abandoned. The basin filled and created the Sea of Azov. Soon the water level of the Sea of Azov was the same as the Black Sea, which was the same as the Sea of Marmara, and the Aegean, and the Mediterranean beyond.

As the geologists end their story, those who fled to Mesopotamia would have had their oral tradition of the Great Flood reinforced almost yearly by the frequent and irregular floods that occur between the Tigris and the Euphrates. The flood story lived on—sung, chanted, and retold around campfires at ceremonies generation after generation by storytellers to remind everyone of the ancient time when the Great Flood destroyed everyone but their ancestors who escaped. Elaborated and modified, the story retained its basic theme: a warning, a violent flood, an escape, a sunken world, then retreating waters, but only some were saved.<sup>38</sup> I can't help but note that the chapter in *Genesis* that follows the flood story has Noah getting drunk.<sup>39</sup> Who can blame him.



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<sup>38</sup> Ryan and Putman, pg. 237.

<sup>39</sup> *Genesis* 9:20-21.