

Part II

Catastrophic Tectonics

This part delves into the first question that needs to be answered before we discuss the evidence for Flood runoff in the subfield of geomorphology. This question is: How did the Floodwater drain off the continent, or in other words how did the Earth go from being totally flooded to the present topography?

An especially important follow up questions is: Do we have evidence? We have plenty of evidence in geomorphology and even in the Bible. The answer to how the Floodwater drained is stated in Psalm 104:6-9, in which the mountains rose and the valleys sank down to drain the Floodwater. This event occurs at God's command, showing his overall sovereignty over the Flood: "the Lord sat as King at the flood" (Psalm 29:10a, NASB).

There is abundant evidence for this differential vertical tectonics all over the Earth, both on the continents and on the ocean basins. The evidence is seen at the small scale of mountains and valleys and at the large scale of continents and oceans.

Chapter 4

How Did the Floodwater Drain Off the Continents?

One of the first questions people ask when thinking about the global Flood is: “How did the water drain off the continents?” A similar question is “Where did the water go?” We need to answer these questions before we move onto evidences of Flood runoff. The Earth needed to transform from being totally flooded at Day 150 to the present topography and geography we see today by Day 371. Evidence that the present topography and geography of the Earth’s surface was essentially set at the end of the Flood will be provided in Chapter 31.

There are only two possible answers to these questions: (1) either the water evaporated, or (2) the water is still on the Earth. The first option can be eliminated because the Earth’s atmosphere can hold at most only a few inches (5 cm) of water in the form of vapor. That leaves only the second option. But where on Earth did the water go? It could not have flowed back into caverns, if some of the Floodwater came from subterranean sources during the Flood. Such caverns would have either collapsed or been eroded during the catastrophism of the Flood.

Therefore, the only option is that the Floodwater is in the present oceans, of which the Pacific Ocean alone takes up almost half the Earth (Figure 4.1). Therefore, part of the area of the Earth must have rose up while other areas sank. This is the *only* option for draining the Floodwater, which would have caused the water to flow off rising areas and into the sinking area. For this to occur, vertical motions of the Earth’s crust and probably a large portion of the mantle must have occurred.

Vertical motions of the Earth’s crust are the subject of the geological discipline of tectonics. The up and down motion of the Earth’s crust can be called *differential vertical tectonics*; one part of the crust goes up vertically while another part goes down.



Figure 4.1. Picture of globe showing Pacific Ocean, which takes up about one hemisphere of the Earth.

The Testimony of Psalm 104:6-9

Psalm 104:6-9 relates to this differential vertical tectonics. Listen to the words of the psalm in the New American Standard Bible (NASB):

⁶You [God] covered it [the Earth] with the deep as with a garment;
The waters were standing above the mountains.

⁷At Your rebuke they [the Floodwater] fled;
At the sound of Your thunder they hurried away.
⁸The mountains rose; the valleys sank down
To the place which You established for them.
⁹You set a boundary that they may not pass over,
So that they may not return to cover the Earth
(brackets and emphasis mine).

Note that this psalm describes a time when the Earth was totally covered by water, since verse 6 states that the Earth, including the mountains, were covered by water. There were only two times in biblical history when the Earth was so covered. The first time was during the second and early on the third days of creation (Genesis 1:6-10), and the second time was during the Genesis Flood (Genesis 6-9).

Psalm 104:6-9 Must Refer to the Flood

Many Christians consider Psalm 104 to be a creation psalm, and that verses 6-9 refer to Days 2 and 3 of Creation Week when the Earth was first created covered in water below the “expanse,” and the dry land appeared within the water below the expanse. But, the psalm is really a praise of God’s greatness, power, and providence over His creation, of which the Flood and especially the draining of the Floodwater would be an example of God’s awesome power.

The wording of Psalm 104:6-9 must refer to the Flood and not to Day 3 of creation because in verse 6 God *covered* the Earth, including the mountains, while on Day 3, God made the dry land appear or “uncovered” the Earth and mountains—just the opposite as verse 6. This verse corresponds with Genesis 7:19: “The water prevailed more and more upon the Earth, so that all the high mountains everywhere under the heavens were covered.” Verse 9 goes on to reinforce this conclusion and states that God set a boundary that the water may not return to cover the Earth. Genesis 9:11-17 describes the symbol of the rainbow as God’s promise to never again flood the Earth. I am amazed that the mechanism for the draining of the Floodwater is actually described in the Bible!

Of course, many scholars who think Genesis 6 to 9 refers to a local Flood continue to believe that Psalm 104:6-9 refers to Day 3 events. Davis Young, a retired geologist from Calvin College, is one of those who believes this psalm is a creation psalm and on that assumption dismisses these verses as relevant to the Flood.¹ It appears the bias of these scholars is constraining their interpretation—an interpretation that goes against the evidence. Why should we attempt to “revise” God’s clear Word based on what the culture believes about the past and whether some people believe in a local flood?

The Flood Was Global

Psalm 104:6-9 indicates that the Flood was global, as does the context and wording of Genesis 6 to 9. But some people claim the Flood was only a small, local flood, perhaps in the Tigris/Euphrates Valley. They say that universal terms, like “all the earth,” do not mean all, but only the region where one can see. They have a point because such universal terms are sometimes employed locally or regionally, but Genesis 6 to 9 uses 30 universal terms implying the entire globe! Could all 30 of them refer only to a flooded region?

¹ Young, D.A., 1995. *The Biblical Flood: a Case Study of the Church’s Response to Extrabiblical Evidence*. William B. Eerdmans Publishing Company, Grand Rapids, MI, p. 4.

If it were just a local flood, there are many contradictory statements in Genesis 6-9, such as why build an Ark; why do two of each kind of air-breathing, terrestrial animal even need to be in the Ark; why did the Ark end up in the mountains and not down on a floodplain or in the ocean; why were the tops of other mountains not visible until 73 days after the Ark grounded, etc.?

And the clincher proof that the Flood was global comes from Jesus himself in Matthew 24:37-39 (NASB):

³⁷For the coming of the Son of Man will be just like the days of Noah. ³⁸For as in those days before the flood they were eating and drinking, marrying and giving in marriage, until the day that Noah entered the ark, ³⁹and they did not understand until the flood came and took them all away; so will the coming of the Son of Man be.

Jesus believed in a real Noah, a real Ark, and the Flood took all people away. Of course, some people believe that “all” in verse 39 only refers to all those in a region and thus, these verses describe a local or regional flood. But there is one big problem with local thinking and that is Jesus is using the Flood as an *analogy* for his second coming. In Revelation 1:7 (NASB), it says that Jesus’s coming will be a global coming: “Behold, He is coming with the clouds, and every eye will see Him, even those who pierced Him; and all the tribes of the Earth will mourn over Him....” Since Jesus is the Creator (Colossians 1:16, 17; John 1:3), He would not compare a local event with His global second coming. Therefore, the Flood was global.

The Meaning of Psalm 104:8

Verse 8 is a tough verse to translate. It is alternately translated by about half the other versions of the Bible,^{2,3} including the NIV, that says: “they [the Floodwater] flowed over the mountains, they went down into the valleys, to the place you [God] assigned for them.” I lean toward the NASB because verse 7 states that the Floodwater fled, which does not quite go along with the idea of the water flowing over the mountains. Furthermore, verse 8b says that the water ended up in the place God established for it, which implies that the water totally drained as a result of the action of verse 8a. Thirdly, the only way to drain the Floodwater, as stated above, is for differential vertical tectonics to take place.

Notice in verse 8 that as the water fled (Psalm 104:7a), *the mountains rose and the valleys sank down* to the place that God established. The net effect of the mountains rising and the valleys sinking is that the Floodwater would drain toward low spots on the Earth, and these would be valleys on the continents and ultimately the ocean basins that sank relative to the continents (see Chapter 7). Also, it would be the mountains that would first be seen above the Floodwater, and this is why the Ark grounded on the “mountains of Ararat” (Genesis 8:4). In a local flood, a boat accidentally caught in the water would be carried downstream. If it did not sink, the boat would end up on a flood plain or in the ocean.

² Taylor, C., 1998. Did mountains really rise according to Psalm 104:8? *Journal of Creation* 12(3):312–313.

³ Taylor, C., 1999. More on mountains—Charles Taylor replies. *Journal of Creation* 13(1):70–71.

The “Covering” of Mount Everest “Challenge” —Answered

Psalm 104:6-9 provides an answer to what is considered a major “challenge” for a global Flood, and that is how the present water in the oceans could have climbed up and over the height of Mount Everest,^{4,5} which is almost 30,000 feet (9,145 m) high (Figure 4.2). Such a challenge would also apply to other high mountains of the world because if all the water in the oceans was raised to sea level, the depth would be only 1.7 miles (2.7 km) above sea level. We know that the mountains today were once under the ocean, because rocks forming the tops of most mountains contain marine fossils. These fossils are not lying in the surface debris covering the mountains, as if washed up to these great heights during the Flood, but are actually *within* the sedimentary rock that forms mountains or parts of mountains. For instance, there are marine crinoid fossils in limestone at the top of Mount Everest.⁶



Figure 4.2. Mount Everest in the Himalaya Mountains (from Wikipedia).

This challenge often comes from secular critics of the Flood. But surprisingly, many theologians have also invoked the covering of Mount Everest to claim the biblical Flood was not global.⁷ For instance, Old Testament scholar and local Flood advocate, Bernard Ramm, typifies the objection of many critics:

There is a problem of the amount of water required by a universal flood. All the waters of the heavens, poured all over the earth, would amount to a sheath seven inches thick. If the earth were a perfect sphere so that all the waters of the ocean covered it, the depth of the ocean would be two and one-half to three miles. To cover the highest mountains would require eight times more water than we now have. It would have involved a great creation of water to have covered the entire globe, but no such creative act is hinted at in the Scriptures.⁸

Mathematical errors are ubiquitous in Ramm’s statement. First, there is only an average of about one inch (2.5 cm) of liquid water in the present atmosphere, not seven (18 cm). Second, the amount of water in the ocean, if all raised to current sea level on a perfect sphere, is about 1.7 miles (2.7 km) deep, not 2.5 to 3 miles (4-5 km). Third, Mt.

⁴ Oard, M.J., 2004. *The Missoula Flood Controversy and the Genesis Flood*, Creation Research Society Monograph No. 13, Chino Valley, AZ, pp. 74–75.

⁵ Oard, M.J., 2009. Mt Everest and the Flood. In, Oard, M.J. and J.K. Reed (editors), *Rock Solid Answers: The Biblical Truth Behind 14 Geological Questions*, Master Books and Creation Research Society Books, Green Forest, AR and Chino Valley, AZ, pp. 19–27.

⁶ Gansser, A., 1964. *Geology of the Himalayas*, Interscience Publishers, New York, NY, p. 164.

⁷ Young, D.A., 1995. *The Biblical Flood: a Case Study of the Church’s Response to Extrabiblical Evidence*. William B. Eerdmans Publishing Company, Grand Rapids, MI.

⁸ Ramm, B., 1954. *The Christian View of Science and Scripture*, William B. Eerdmans Publishing Company, Grand Rapids, MI, pp. 165–166.

Everest is 29,035 feet (8,850 m) or 5.5 miles high. So, given Ramm's water depth of 2.5-3 miles (4-5 km), there would need to be only about two or three times, not eight times, the amount of ocean water. But, Ramm still has a point, although his poor math casts doubt on the rest of his scholarship and shows how little time he spent on this "problem."

Another more modern example can be found in the popular *NIV Application Commentary: Genesis*, in which John Walton considers a global Flood an extreme belief because the water cannot cover the high mountains:

According to the conventional interpretation of the Genesis version of Noah's story, the sea level rose for 150 days until it covered the tops of the mountains and then subsided for another 150 days. It is easy to prove that this is physically impossible.⁹

It is interesting that Walton says that the Retreating Stage of the Flood lasted only 150 days, while the Bible states that it was 221 days. It makes one wonder whether he also has put little thought into this "problem." True, it is "physically" impossible now to cover all the mountains with no changes in topography, but the geography and topography were different before the Flood and always changing during the Flood. And besides do not Ramm and Walton realize that with God all things are possible?

There are logical and biblical problems with Ramm's and Walton's arguments. They first presume to know how the Flood worked and to understand its hydrodynamic, tectonic, and destructive ability. Second, they do not heed what Jesus said to the Sadducees, the first century Jewish sect that did not believe in a resurrection after death. Jesus told them their problem: "You are mistaken, not understanding the Scriptures nor the power of God" (Matthew 22:29). Third, like so many other critics, these theologians believe too much of what secular scientists have said about the unobservable and therefore unscientific past. In other words, they believed the *speculations of sinful men who did not observe what happened* (observations and repeatability are keys to science) over the clear word of God. Ramm even admits his basic, naive trust in what he believes are scientific facts (really speculations of the past) in his preface: "With reference to technical details of the sciences I must depend on what other men say, and I am thereby at their mercy."¹⁰

Instead, Ramm, Walton, and other critics of the Flood should apply 1 Thessalonians 5:21 (NASB): "But examine everything *carefully*; hold fast to that which is good..." They need to hold fast to the whole Bible from Genesis to Revelation as God's straightforward Word. Genesis 1-11 reads as clear history just like Joshua, Judges, 1 and 2 Kings, 1 and 2 Samuel, etc. Then they should carefully examine the statements made by evolutionary/uniformitarian scientists. With some persistence and going beyond the superficial level of evolutionary/uniformitarian stories, a different picture emerges.

And mostly amazingly, the answer to their challenge is right in Scripture; it is Psalm 104:8 as quoted above. Thus, Mount Everest and other high mountains of the present world with their sedimentary rocks and fossils *rose up out of the Floodwater* during the later stages of the Flood. Figure 4.3 is a schematic of the Uinta Mountains rising about 40,000 feet (12,195 m) with respect to the same type of rock in the basins to the north and south as the Floodwater drained. Thus, the present ocean water never had to rise up and inundate the present Mount Everest; the mountain and the Himalayas *rose out of the Floodwater*.

⁹ Walton, J.H., 2001. *The NIV Application Commentary: Genesis*, Zondervan, Grand Rapids, MI, p. 322.

¹⁰ Ramm, Ref. 8, p. 8.

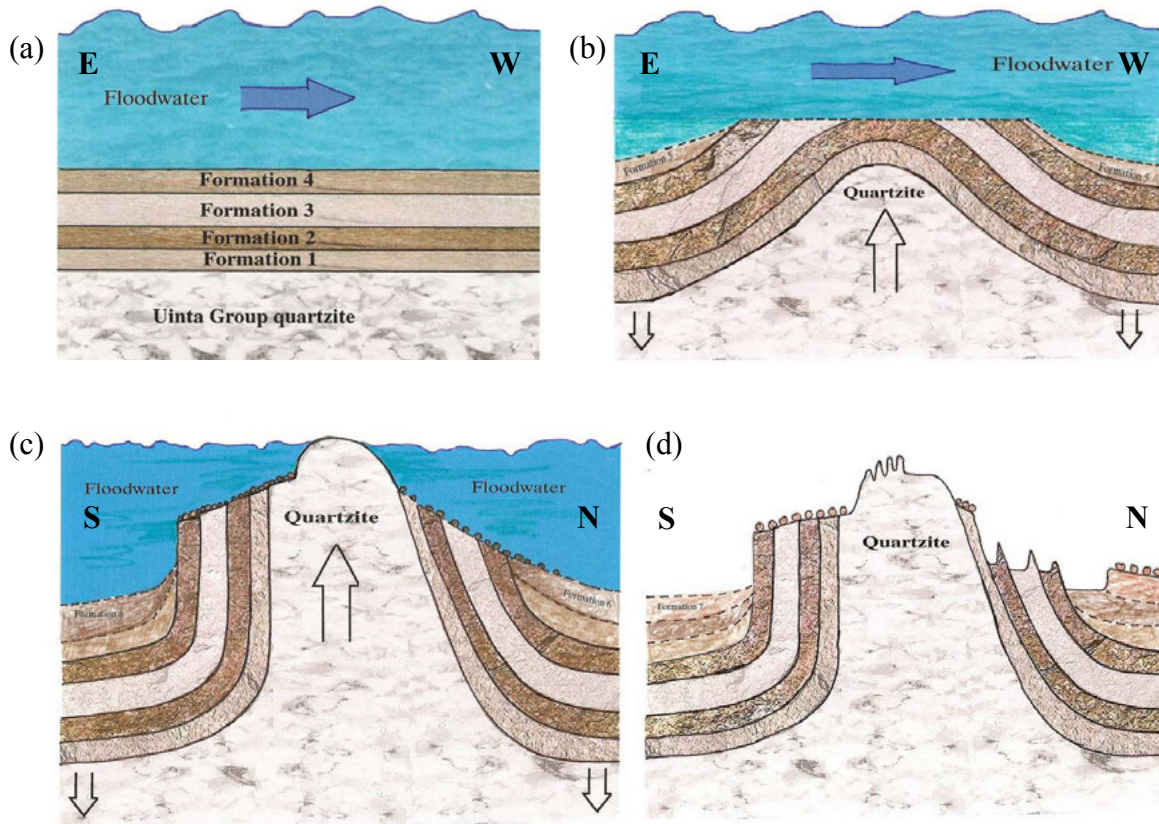


Figure 4.3. A schematic of the Uinta Mountains rising about 40,000 feet (12,195 m) out of the Floodwater (drawn by Mrs. Melanie Richard).

The solution to the covering of Mount Everest, as well as the draining of the Floodwater, is quite simple. It is plainly stated in the Bible. I wish all challenges were this easy, and some are.

It is understandable why uniformitarian scientists should have a problem with the Floodwater covering the high mountains, since the origins issue is a worldview issue and these scientists are committed to naturalism, the belief that nature is all there is and there is no supernatural. These scientists rarely read or even understand the Bible, and they certainly know little about the Genesis Flood. But, one wonders how theologians could possibly trip over this “problem.”

Many want to know how the mountains rose and the valleys sank down. It would be nice to know the exact mechanism or mechanisms of differential vertical tectonics, but we were not there and we know little about earth science. We need to know much more about the subsurface, but geophysical methods give us only a little information, which can be interpreted in different ways. Nevertheless, a few mechanisms for differential vertical tectonics are explored in Appendix 1. A more precise mechanism for differential vertical tectonics is left for enterprising geophysicists of the future.