

THE ARK AND THE DARKNESS: UNEARTHING THE MYSTERIES OF NOAH'S FLOOD

Daniel A. Biddle, Ph.D.



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GENESISapologetics

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A 501(c)(3) ministry equipping youth pastors, parents, and students with the Biblical truth about Genesis, Creation, and the Flood.

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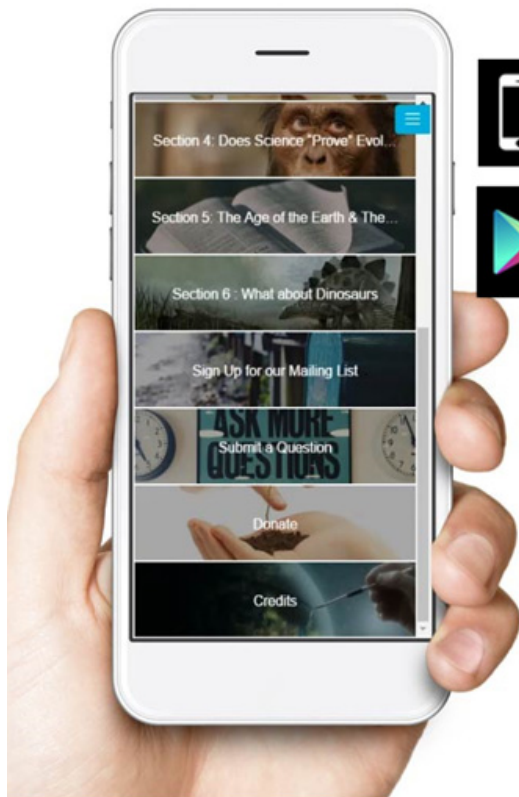
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Dedication

To my wife, Jenny, who supports me in this work. To my children Makaela, Alyssa, Matthew, and Amanda, and to your children and your children's children for a hundred generations—this book is for all of you.

We would like to acknowledge Answers in Genesis (www.answersingenesis.org) and the Institute for Creation Research (www.icr.org). Much of the content herein has been drawn from (and is meant to be in alignment with) these Biblical Creation ministries.

Personally, I would like to thank Mark Johnson and Dave Bisbee who helped open my eyes to the Truth in Genesis, and my friends Dr. John Baumgardner, Dr. Brian Thomas, Dr. Tim Clarey, and Dr. Andrew Snelling, whose life work, sacrifice, and mentorship opened the doors for many and made this movie and book possible.

“This is the Lord’s doing; it is marvelous in our eyes.”

—Psalm 118:23

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About Genesis Apologetics

Genesis Apologetics is a non-profit 501(c)(3) ministry that provides Christians with training programs for students of all ages covering Creation, Noah's Flood, the fossil record, gender sex and marriage, race, evolution, the reliability of the Bible, and others. Our programs have been used in schools around the world, translated into 13 languages, distributed by mainstream Christian outlets, and are available free online:

- **Noah's Flood Movie** ("**The Ark and the Darkness: Unearthing the Mysteries of Noah's Flood**") and **Resources:** www.noahsflood.com
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Introduction

It was a blazing hot day in Alberta's Dinosaur Provincial Park, a location with one of the largest dinosaur graveyards in the world. My daughter Makaela and I were standing beside an outdoor dinosaur fossil exhibit that featured a hadrosaur (duck-billed dinosaur) right where it had been found, buried by the Flood waters. A father and son stood behind us. The boy pressed the button to play the audio recording from the secular museum. It explained how "millions and millions of years ago" this dinosaur tried to swim across a swollen river during a tropical storm and drowned (somehow along with a 13-mile stretch of other dinosaurs, mammals, and sea life that met the same fate at the same time).

After hearing the explanation, Makaela had her "wake-up" moment. She turned to me—with the two strangers standing just feet away—and gave me five-minute verbal storm about how the secular explanation made no sense whatsoever. We were surrounded by a catastrophic burial stretching at least 13 miles where over 32,000 specimens from 35 species, 34 genera, and 12 families of dinosaurs were obviously entombed by hundreds of feet of mud along with fish, turtles, marsupials, amphibians, and countless clams. It was obvious: this was a massive, watery kill zone where these creatures were buried *by* the very water and mud responsible for their death.

We walked back to the car and the man who overheard my daughter's "my eyes are now opened" speech approached me in the parking lot. Expecting him to confront me about my daughter's "Creationist rant," I was shocked when the very opposite happened. He explained that he grew up as a Christian, but lost his faith while attending college to become a licensed geologist (his current occupation). His next words blew me away: "Your daughter's five-minute explanation about the Flood and the dinosaur fossil record made more sense to me than the explanations I received over several years of studying to become a geologist. I am now returning to my faith..." He

went on to explain how the millions of years, evolution, and dinosaur burial evidence never made sense to him given what we see in the fossil record, now especially so after learning more about the biblical framework surrounding dinosaurs.

I had two more “coincidental” meetings with him in different locations over the next two days, where we continued the dialogue about making biblical sense over the fossil record. Who could imagine what a young boy pushing the play button at a museum exhibit could do one hot day in Canada?

Students deserve to know that the Bible presents the true case about earth’s past, as well as its future. Secular colleges—and even many Christian colleges—teach that the Bible is not real history. The 18 inches that separate the head from the heart can represent a chasm of faith that is never crossed by many. Today’s students want to know: When does the truth begin in the Bible? On the first page? How many pages need to be turned until truth begins?

This book helps answer these very important questions. In fact, we challenge any reader—Christian or not—to study these pages and somehow *not* come away with the belief that the Genesis account of the worldwide Flood is a real, historic event. To make this challenge even easier, this book is very short given what it *could* include, and represents a very distilled list of only the leading, salient evidences of Noah’s Flood. The complete list is much, much longer than what’s provided in these pages. We pray the Lord opens your eyes to the truth of earth history by revealing that when it comes to the early pages of Genesis, the truth is more terrifying than fiction...

What Was the Pre-flood World Like?

Biblical Creation holds that God created a perfect initial world with no death, no carnivory, and no “survival of the fittest.”¹ Further, animals were created to reproduce—just as we observe today—after their “own kind.” Creationists also believe that this perfect world held out until it was marred by the sin of Adam and Eve, which brought death, suffering, bloodshed, and disease.² Geographically, this pre-Flood world may have had only a single landmass³ until the Flood broke the continents apart. The Flood occurred 1,656 years after Creation according to English Bible translations.

Biblical creationists have presented many pre-Flood climate models over the years, with many of them called “Canopy Models.” While several variants exist, all canopy models interpret the “waters above” (firmament) in Genesis 1:7 as some type of water-based canopy encircling the Earth from the beginning of creation until the Flood. As models of history, these ideas held promise to explain the pre-Flood climate, but they produced problems. For example, meteorologist Dr. Larry Vardiman spent decades at the Institute for Creation Research modeling a pre-Flood vapor canopy. In the end, he found no way for the modeled steam to avoid making earth dangerously hot. While these models and others exist, we ultimately don’t know what the pre-Flood world was like because we weren’t there. Further, the Bible gives few insights. It does suggest the following features:

- Before the Fall, the atmosphere was *perfect* for sustaining life (Genesis 1:31) and there was no death (Genesis 2:17; Romans 5:12; 1 Corinthians 15:22). This soon ended.
- Earth’s atmosphere likely had sunlight and temperature variations within the days and nights (Genesis 3:8).
- Given that Adam and Eve were told to be “fruitful and multiply and fill the earth” (Genesis 1:27; 3:21) and they

were “naked and unashamed” before the Fall (Genesis 2:25), it appears they had no need of clothing before the Fall.

- The Flood ruptured earth’s land mass. It rearranged continents and pushed up today’s mountains (Psalm 104:8).
- Genesis 2:5–6 states, “For the Lord God had not caused it to rain on the earth, and there was no man to till the ground; but a mist went up from the earth and watered the whole face of the ground.” While this may mean that there was no rain until the Flood, this passage is at least clear that God originally used an underground system to water plants. After the Flood, the above-ground system we call the water cycle dominated.
- Because the rainbow was given to mark a new covenant between God and the Earth (to never again Flood the entire earth) (Genesis 9:13), there is the possibility that Earth’s climate was changed after (and by) the Flood to allow rainbows.⁴ However, God may have used an existing phenomenon as a sign of His covenant.

These insights point to the idea that the pre-Flood world was quite different than the post-Flood world of today. The New Testament also acknowledges this distinction. Second Peter 3:6 says, “by which the world that then existed perished, being flooded with water.” The fossils also indicate differences in the pre-Flood.

- Giant land beasts, such as sauropod dinosaurs that grew as large as 115 feet and 200,000 pounds.
- Giant flying reptiles called pterosaurs had over 50-foot wingspans (e.g., *Quetzalcoatlus*).
- Giant dragonflies had 2-1/2 foot wingspans and 17-inch bodies (*Meganeura*).
- Mushrooms grew over 20-feet high (*Prototaxites*).⁵

- Giant millipedes grew over eight feet long (*Arthropleura*).
- Sea lilies (not plants, but Echinoderms) are measured in inches today, but reached over a dozen feet before the Flood.
- Millions or more fossils of shallow marine creatures show that the pre-Flood world had vast (continent-sized) stretches of shallow seas unlike today's deep oceans.

The above list could be much longer; these are just a few examples. Biblical creationists and evolutionists agree that these giant creatures, plants, and habitats existed. Indeed, they are in the fossil record for everyone to evaluate, regardless of the worldview lens through which they are viewed. We also agree that these ancient features existed in a *different version of the Earth*. Evolutionists place it millions of years ago, while Biblical creationists place it before the Flood, just thousands of years ago. Next, we'll look at some of these creatures more closely.

Giant Flying Reptiles (Pterosaurs)

One of the largest flying reptiles is *Quetzalcoatlus*, which was named after the Mesoamerican feathered serpent god, Quetzalcoatl. Many studies have attempted to estimate this creature's wingspan, with most estimates coming in over 36 feet.⁶

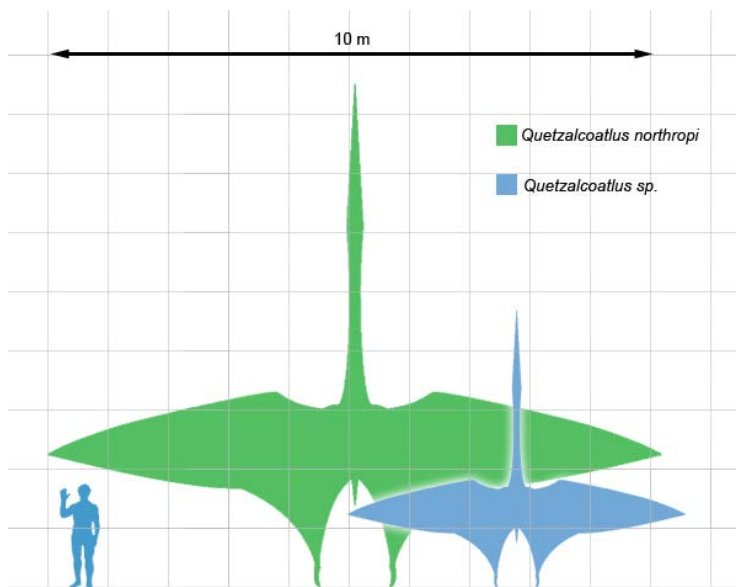


Figure 1. Quetzalcoatlus Wingspan.⁷

The wingspan, however, is not what puzzles scientists about this giant—it’s the *large wingspan given its weight*. While estimates vary, some studies estimate the weight of the larger specimens discovered to exceed 500 pounds.⁸ That’s likely too much weight for a flying creature to bear and still be able to fly. Several studies have investigated how these massive creatures could fly, with some reports even titled, “*This Pterodactyl was so big it couldn’t fly*” and opening sentences such as “*Bad news dragon riders: Your dragon can’t take off.*”⁹

Scientists who have studied and published on this extensively have even admitted: “...it is now generally agreed that even the largest pterosaurs could not have flown in today’s skies” and have offered explanations such as “warmer climate” or “higher levels of atmospheric oxygen” as reasons it could have flown only during the era in which it lived.¹⁰

Some secular studies that have investigated air bubbles trapped in amber that was dated to the “ancient world in which dinosaurs lived,” have found *both* increased pressure as well as

greater oxygen levels. The magazine *New Scientist* wrote, “One implication is that the atmospheric pressure of the Earth would have been much greater during the Cretaceous Era [rock system], when the bubbles formed in the resin. A dense atmosphere could also explain how the ungainly pterosaur, with its stubby body and wing span of up to 11 meters, could have stayed airborne.”¹¹

Giant Dragonflies (Meganeura)

The largest dragonfly species alive today (*Megalopterus caerulatus*) has a wingspan of up to seven inches and a body up to five inches long. Based on the fossil record, the largest pre-Flood dragonflies (*Meganeura*) had wingspans up to 2-1/2 feet and a 17-inch body. See Figure 2.

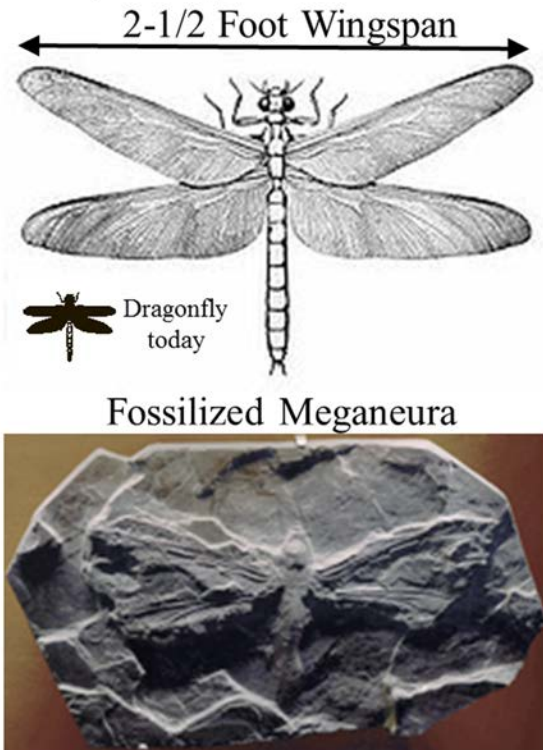


Figure 2. Giant Pre-Flood Dragonfly (*Meganeura*).¹²

In October 2006, *Science Daily* publicized a study led by Arizona State University staff titled “Giant Insects Might Reign if Only There Was More Oxygen in the Air.”¹³ The article claims:

The delicate lady bug in your garden could be frighteningly large if only there was a greater concentration of oxygen in the air, a new study concludes. The study adds support to the theory that some insects were much larger during the late Paleozoic period because they had a much richer oxygen supply, said the study’s lead author Alexander Kaiser. The Paleozoic period...was a time of huge and abundant plant life and rather large insects—dragonflies had two-and-a-half-foot wing spans, for example. The air’s oxygen content was 35% during this period, compared to the 21% we breathe now, Kaiser said.

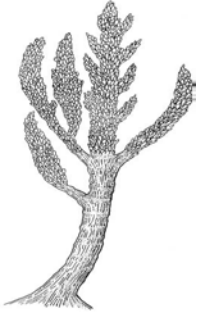
This research lends evidence to the fact that the pre-Flood world was different than the one we live in today.

One study conducted in 2010 by researchers at Arizona State University tested this “more oxygen = bigger insects” theory directly by raising 12 different types of insects in simulated atmospheres with various oxygen levels. Their study included three sets of 75 dragonflies in atmospheres containing 12%, 21%, and 31% oxygen levels and their experiment confirmed that dragonflies grow bigger with more oxygen.¹⁴

A host of reasons could explain why the pre-Flood dragonflies grew much larger than even those in the experiment. They probably had not yet lost the genetics for large size, oxygen could have been a limiting factor (as the body of the insect grows larger, the mass grows faster than the surface area, making it harder to intake enough oxygen for the needs of the

body the larger it grows). We also know that creatures lived longer before the flood.

Giant Mushrooms (*Prototaxites*) and Plants



You don't need to read many secular-based books about the "ancient Earth" before learning about gigantic vegetation that existed supposedly millions of years ago. One example is the *Prototaxites* (see Figure 3). Some reports even state that these gigantic (now extinct) mushroom-like plants covered much of the Earth and "dotted the ancient landscape."¹⁵

Figure 3. *Prototaxites*

First discovered by a Canadian in 1859, no one seemed to know what they were. But after 130 years of debate whether this plant was a lichen, fungus, or some kind of tree, scientists have come to some level of agreement that it was essentially a "gigantic early mushroom."

Plants and fungi like these puzzle evolutionists, such as Kevin Boyce of Geophysical Sciences at University of Chicago, who stated, "A 20-foot tall fungus doesn't make any sense. Neither does a 20-foot tall algae make any sense, but here's the fossil."¹⁶

From a Biblical creation standpoint, this is simply a gigantic pre-Flood fungus that God created. It could thrive in the pre-Flood world, but not now. In a temperate, pre-Flood world where wearing clothing was (originally) "optional," it's no wonder that giant fungus and plants like this could have thrived.

Giant Millipedes (*Arthropleura*)

Giant millipedes (called *Arthropleura*) that grew to be over eight feet long¹⁷ used to crawl around before the Flood in

what became northeastern America and Scotland. The larger species of this group are the largest known land invertebrates of all time. Evolutionists attribute their grand size to different pressures and/or oxygen levels of Earth's ancient past.¹⁸

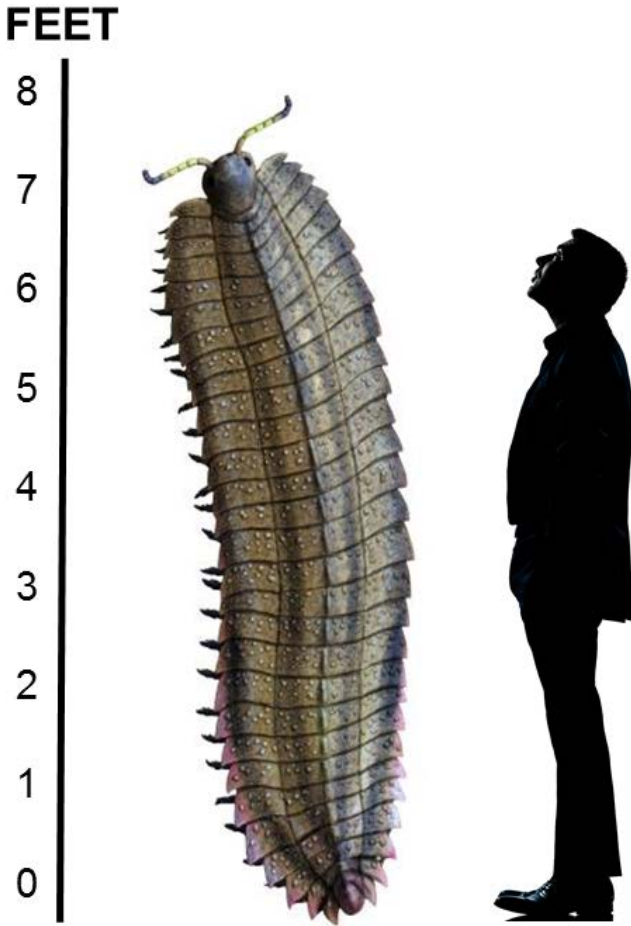


Figure 4. Giant pre-Flood Millipedes (*Arthropleura*).

How Did People Live to Be Over 900 Years Old Before the Flood?

Many Bible readers feel puzzled when reading the genealogies in Genesis. They describe patriarchs living for hundreds and hundreds of years. Adam lived to be 930. His son Seth, 912. Methuselah 969. Noah 950. What's going on here? Did ancient Bible writers just imagine these incredibly long lifespans? This would seem to be the case since people today only live into their 70s or 80s often with the help of modern medicine. These long lifespans must be mythical, right? Well... maybe not. Certain compelling reasons to believe that the biblical authors were recording the actual long lifespans of these patriarchs have persuaded trained geneticists to take these Genesis numbers at face value.¹⁹

The remarkable picture from these lifespans only emerges when plotting them on a graph. After all, a picture is worth a thousand words. Only then do we see that the average lifespan of these patriarchs who lived before the Flood lived an average of 912 years. After the Flood, their lifespans began systematically declining, following what's known by biologists as a "biological decay curve." A mythical list of ages would be unlikely to take such a predictable, exponentially declining curve. Noah, who was the 10th from Adam, lived through the Flood and died at age 950. Noah's son Shem lived 600 years; his grandson 438 years. Five generations past Noah, lifespans decline to the 200s. Abraham, who was 10 generations after Noah, lived to be 175. We also have Jacob, when he was 130 years old, stating to Pharaoh that he had not lived as long as his ancestors. Jacob later died at 147. Several generations later we have Moses, living to be only 120.

What's going with these lifespans? They systematically decline along a familiar-looking pattern that statisticians call an "exponential power curve." Plotting their ages does not reveal a straight-line slope, but a curved one. They don't suddenly bottom out right after the Flood, nor do they decline evenly.

Rather, the lifespans decline along a nonlinear, exponential curve over time. And this curve literally passes every test for statistical significance. Whatever is going on here is not some chance occurrence. Their pattern breaks every possibility of being some fluke.

Geneticist Dr. John Sanford of Cornell University—who was part of a team that invented the “gene gun”—noted that these lifespans fit so tightly along this power curve that 95% of the lifespan variance is explained by the number of generations from Noah.²⁰ This statistical model matches the biblical data so closely that its likelihood of occurring by chance lies below one in a thousand. Now that’s uncanny.

This exceptionally strong correlation allows us to predict how long people would live based on how many generations they are from Noah. For example, the curve predicts that someone living 10 generations after Noah would have a 90% likelihood of living between 137 and 234 years. Similarly, it predicts with 90% certainty that a descendant alive 15 generations after Noah would live between 100 and 172 years. This model is so powerful that the average lifespans predicted by the model are within 10% of the actual lifespans recorded in the Bible! This close match reaches well beyond coincidence.

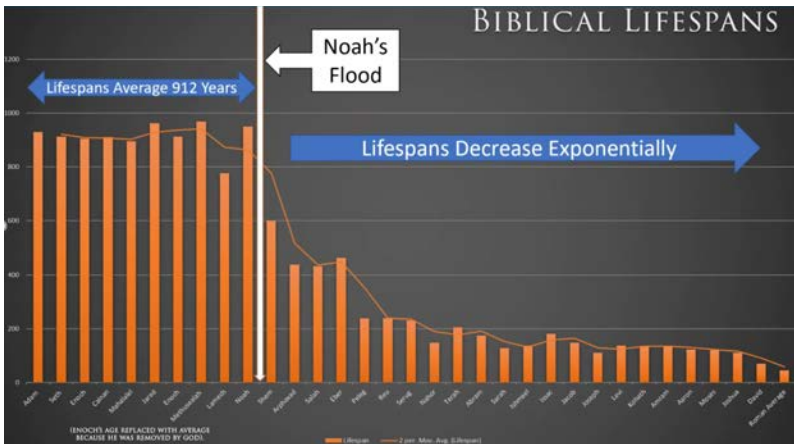


Figure 5. Biblical Lifespans Decline Since Noah.

This leads to an even more stunning realization: The lifespans in the biblical text span over 2,500 years of recorded history. And the original portions of Scripture that include these lifespans—Genesis 5 and 11—were produced by eyewitnesses whose lives overlapped one another for centuries and decades. So how in the world could they be faked? All of the original authors over numerous generations would have to be in on the scam, conspiring together to record lifespans that perfectly declined along an exponential power curve. Like that’s going to happen!

Thinking about that for a minute... why would they even want to do that? If you were going to make up some story about people in the past that you wanted your future readers to believe, why would you include such unbelievable lifespans? Making this “myth” explanation even less likely, whoever would fabricate this story must have understood advanced statistics. In addition, look at how the lifespans before the Flood are stable. They don’t follow *any* sloping trendline. The systematic decline only starts *after* the Flood, suggesting that some aspect of the Flood event initiated the down-sloping power curve in lifespans. What was it? Dr. John Sanford explains:²¹

The mathematical nature of the declining lifespans arose because the Biblical accounts are true, and are actually faithfully recording the historical unfolding of some fundamental natural degenerative process... The shape of the downward slope should be immediately recognized by any biologist. It is a biological decay curve. Noah’s descendants were undergoing some type of rapid degenerative process... there is now very strong evidence that humans are degenerating genetically, and have been for thousands of years, due to continuously accumulating mutations. This makes it very reasonable to conclude that the systematic

degeneration of man that is documented in the Bible was due to mutation accumulation and resultant 'genetic entropy.

A genetic bottleneck may well explain why mutations suddenly kicked into high gear.²² This occurs when a very small group of individuals become isolated from a once-larger population. The few individuals carry fewer genetic variations than their forebears. They now must build each generation using less information in their cellular blueprints. Biologists have watched lifespans decline after bottlenecks in various animal populations, from dogs to guppies.

The Genesis lifespan decay curve looks like real biology which points to real history. Books throughout the entire Bible, written by different authors in different timeframes, affirm this history. For example, Peter referred to “the days of Noah,” when “eight souls were saved through water” (1 Peter 3:20). Shrinking the entire human population down to eight was the ultimate genetic bottleneck in human history.

This Genesis-based trendline also points to a recent creation. Luke 3 lists a specific number of generations from Adam to Jesus, and the first names on that list coincide with the names in the Genesis accounts. The smooth, systematic decline in longevity leaves no room for hundreds or thousands of missing generations.

Even after learning about this amazing evidence in the Bible, many may still hold the popular but poorly defended position that ancient shepherds wrote their dreamed-up family history on animal skins. But it defies reason that ancient writers developed a text that spanned multiple generations, included over 20 lifespans that track over 2,500 years, and include two distinct and biologically relevant trendlines from the pre- and post-flood eras. Even so, how would the supposed shepherd pass off his forged history as real history to his own community leaders? Nobody gets away with that today. It would be impossible to collude such a statistical phenomenon over generations.

So, what are the implications that come from this? Well, for one, this shows that the whole of Scripture fits together, with several books from both the Old and New Testaments referring to these genealogies as authentic history. Even Jesus himself referenced by name Abel and Noah as though they were real people (e.g., Luke 11:51, 17:26–27). Paul also referred to them historically, and even computed timespans based on these genealogies, treating them as real history.

What causes aging anyway? Biologists continue to investigate unknown aspects of aging, but largely agree that accumulated mutations within the body during one’s lifetime accompany the symptoms of aging, including wrinkled skin, weak bones, and loss of immune and other system efficiency. If God made Adam genetically perfect in the beginning, then no wonder his close sons and daughters could live so long. The Bible also promises that Christ would be our “Kinsman Redeemer,” and breaking apart these genealogies would undermine the Gospel itself. Christ the Redeemer had to map back to Adam as the Bible promised.

These findings strongly support the historicity and veracity of the Bible, especially the book of Genesis. They suggest that although the longevity of the early Patriarchs seems extreme from our perspective, it could have been normal for them. The declining lifespans of the post-Flood patriarchs were due to the ongoing degeneration that resulted from Adam and Eve’s Fall and were accelerated by the genetic bottleneck caused by the Flood. The drastic decline in lifespans immediately following the Flood also supports the worldwide extent of the Flood, refuting ideas that it was ordinary or local. Because the genealogies and lifespans are linked, they validate the tight father-to-son nature of the genealogies, without gaps, leading to Adam and Eve living just thousands of years ago.

When was Noah’s Flood and How Long Did It Last?

A straight-forward reading from today’s modern bibles places Noah’s Flood about 2,348 BC. This classic timeline comes from the 17th-century historian Bishop James Ussher, who used the biblical genealogies and other sources to estimate the year of Creation at 4,004 BC.

Some recent research into the copyist differences in the early Masoretic text (the primary source used for our Bibles today) and early Septuagint texts (early Greek translation of the Old Testament) place the Flood around 2,518 BC based on the Masoretic text and between 3,158 BC and 3,298 BC based on the Septuagint (and other early texts), with Creation as early as 5,554 BC.²³ None of these differences, however, tarnish the perfect nature of the *original writings* which were “written through man by God” without error. These issues have been discussed in leading creation journals and readers are encouraged to study this topic further.

So, how long did the Flood last? Genesis 6–9 includes a diary from the very people who went through the Flood, including how the Flood started, major milestones during the process, to how it ended. Table 1 summarizes the entire process.

Table 1. Flood Duration (Adopted from Answers in Genesis²⁴)

Timeline (days)	Duration	Month/Day	Description	Bible Reference
0	Initial reference point	600th year of Noah’s life: 2nd month, 17th day of the month	The fountains of the great deep broke apart and the windows of heaven were opened on the 17th day of the 2nd month. Noah actually entered the Ark seven days prior to this.	<i>Genesis 7:11</i>

40	40 days and nights	3rd month, 27th day of the month	Rain fell for 40 days, then water covered the earth's highest places (at that time) by over ~20 feet and began the stage of flooding until the next milestone.	<i>Genesis 7:11–12, Genesis 7:17–20</i>
150	150 days (including the initial 40 days)	7th month, 17th day of the month	Water rose to highest level (covering the whole earth) between day 40-150, and the end of these 150 days was the 17th day of the 7 th month. Ark rested on the mountains of Ararat. Springs of the deep stop on day 150, rain ceased, and the water began receding.	<i>Genesis 7:24–8:5</i>
$150 + 74 = 224$	74 days	10th month, 1st day of the month	The tops of the mountains became visible on the first day of the 10 th month.	<i>Genesis 8:5</i>
$224 + 40 = 264$	40 days	11th month, 11th day of the month	After 40 more days, Noah sent out a raven.	<i>Genesis 8:6</i>
$264 + 7 = 271$	7 days	11th month, 18th day of the month	The dove was sent out 7 days after the raven. Returned after finding no resting place.	<i>Genesis 8:6–12</i>
$271 + 7 = 278$	7 days	11th month, 25th day of the month	After 7 more days, Noah sent out the dove again, returning this time with an olive leaf in its beak.	<i>Genesis 8:10–11</i>
$278 + 7 = 285$	7 days	12th month, 2nd day of the month	After 7 more days, Noah sent out the dove again, and it did not return.	<i>Genesis 8:12</i>
314	29 days	601st year of Noah life: 1st month, 1st day of the month	Noah removed the cover of the Ark on the 1 st day of the 1 st month. Earth's <i>surface</i> was dried up from Noah's perspective.	<i>Genesis 8:13</i>
370 (371 if counting the first day and last day as full days)	56 days	2nd month, 27th day of the month	The <i>earth</i> was dry, and God commanded Noah's family and the animals to exit. From the 1 st day of the year during the daylight portion there were 29.5 more days left in the month plus 26.5 more days left in the 2 nd month until the exit.	<i>Genesis 8:14–17, Genesis 7:11</i>

How Could the Ark Have Been Seaworthy?

Let's investigate whether the Ark was seaworthy. God gave certain dimensions to Noah for building the Ark: 300 cubits long, 50 cubits wide, and 30 cubits high. Using the Nippur Cubit²⁵ at 20.4 inches, this works out to a vessel about 510 feet long, 85 feet wide, and 51 feet high. Accounting for a 15% reduction in volume due to the hull curvature, the Ark had about 1.88 million cubic feet of space, the equivalent of 450 semi-trailers of cargo space.²⁶ Twice as long as a Boeing 747 and stretching over one-and-a-half football fields, this was a massive ship.

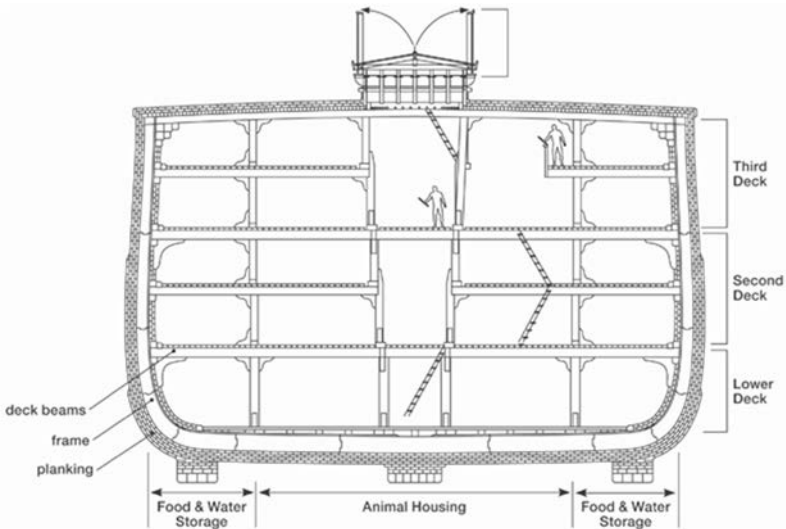


Figure 6. Cross-sectional view of a possible design of the interior of the ark.²⁷

God knew *exactly what He was doing* when He gave Noah the specific dimensions of the Ark. In 1993 Dr. Seon Won Hong conducted a scientific study²⁸ to investigate the seaworthiness of the Ark at the renowned ship research center KRISO (now called MOERI) in South Korea.²⁹ After evaluating the seaworthiness of over 10 various ship dimensions, the study

showed that the Ark dimensions given in the Bible were ideal for handling everything a highly turbulent sea could throw at it, while balancing the need for inhabitant safety. The study showed that the Ark could handle 100-foot waves.

An earlier study conducted in the 17th Century by Peter Jansen of Holland showed that the length-to-width ratio of the Ark (about 7-to-1) was ideal for such a massive, non-powered sea vessel. Some oil tankers have a 7-to-1 ratio as well. He also demonstrated using replica models of the Ark how tough it was to capsize.³⁰

Noah was instructed by God to coat the inside and the outside of the Ark with pitch, a thick gooey substance secreted by trees as a means of protection against infection or insect attack. Isn't it interesting that one of the very first historical references to using pitch for ships is in the Bible? It's also interesting that pitch has been the most effective and widely-used ship waterproofing substance in history. For centuries, tar, which is made from pitch, was among Sweden's most important exports, peaking at over a quarter million barrels per year in the late 1800s. Many of the eastern states in the U.S. were also major tar exporters for ship building purposes until the 1900s.³¹

When heated into a liquid state and applied to ship planking, pitch hardens almost instantly into a protective, waterproof shell, very similar to how epoxy or fiberglass are used in shipbuilding today. The strong outer shell provided by hardened pitch adds both strength and waterproofing beyond the natural capability of the wood. These "divine shipbuilding instructions" given to Noah certainly seem to make realistic sense.

How Could All the Animals Fit on the Ark?

One of the most frequently asked questions about the Ark is: “How could it fit all the animals?” Two factors help answer this question: (1) the size of the Ark, and (2) the number (and size) of the animals and supplies on board. First, the size. Given the size of the Ark (discussed above), the Ark had a total volume of at least 1,396,000 cubic feet.³² The inside dimensions of a 40-foot school bus gives about 2,080 cubic feet of space. Therefore, at least 671 school buses without their wheels and axels could fit inside of Noah’s Ark. If each bus carried 50 students, then 33,550 kids could easily fit in the Ark.

Next, we have the number of animals. The Genesis Flood account states that God brought two (male/female) of every *kind* of air-breathing, land-dwelling animal (and seven pairs of some) to Noah, who loaded them into the Ark. The Hebrew term for kind is *min*, which occurs only 31 times in the Old Testament. So just what is a biblical kind? Biblically and biologically speaking, a kind is a group of animals that were naturally interfertile at the time of the Flood. Some organisms have complex histories since then, so it’s difficult to determine which of them belongs to which kind. Most often, however, plants and animals interbreed within their modern “Family” classification. Thus, each family—give or take—had at least two representatives on Noah’s ark. Several creation scientists have spent considerable amount of time studying this very topic (it’s called the field of *baraminology*, or the study of “created kinds”).³³

While there are various methods for determining “kinds,” (e.g., cognitum and statistical baraminology), hybridization (whether two species can have offspring) is considered the most valuable evidence for inclusion within an Ark *kind*. Take mammals for example. Some biologists list them in 28 orders that include 146 families and over 4,800 species.³⁴ Some place the species estimates higher, around 5,400.³⁵ So how many different mammal pairs would Noah

have to take on the Ark to produce all the mammal species we have today? Take the dog (Canine) kind for starters. The World Canine Organization currently recognizes 339 different breeds of dogs—all are or were interfertile. There are 335 horse breeds that are all interfertile. There are eight bear species in the bear (Ursidae) family and all except for one are interfertile. Notice how the high number of species quickly collapses to a much smaller number?



Figure 7. Ursidae Family (Bears).

Some scientists have boiled down this list of mammal species to only 138 created kinds (using extant species, or animals still alive today). Including the extinct mammalian families known from the fossil record, the actual number on the Ark could have exceeded 300.³⁶ By collapsing the other animal categories in a similar manner, the total estimate of the number of kinds needed on the Ark is fewer than 2,000.³⁷ Dinosaurs were certainly included on the ark, since Scripture says any animal that walked and had nostrils went in, with many dinosaur count estimates at the species level less than 1,000 and fewer than 80 at the family level.³⁸ Noah’s family could have loaded young behemoths, not the larger older ones. Dinosaur kinds, plus many other animals, went extinct after the Flood.

Flood Legends from Around the World

If the Biblical Flood really happened and the descendants of the Flood survivors were spread around the globe at the Babel event shortly after the Flood, we would expect to find flood legends preserved in the 70+ groups dispersed from Babel. The Flood would have been such a significant event that each group would have developed strong oral (and later written) traditions to keep this important part of history alive.

In addition to this, we would expect that the Flood account would change over time, with only some of the main points preserved through the generations. Much like the game of telephone—where information distorts when shared from person to person—we would expect the Flood account to change over time. This is exactly what happened with the Biblical Flood account. So, rather than the differences between the various Flood legends around the world discrediting the Flood account, these differences actually *support* the Flood as a real, historic event.

In his book titled, *Echoes of Ararat: A Collection of Over 300 Flood Legends from North and South America* (2021), Nick Liguori summarizes over 300 legends from people groups around the world that provides overwhelming support to this massive “worldwide telephone game.” See Figure 8 that shows the locations of each Flood legend he includes in his book.

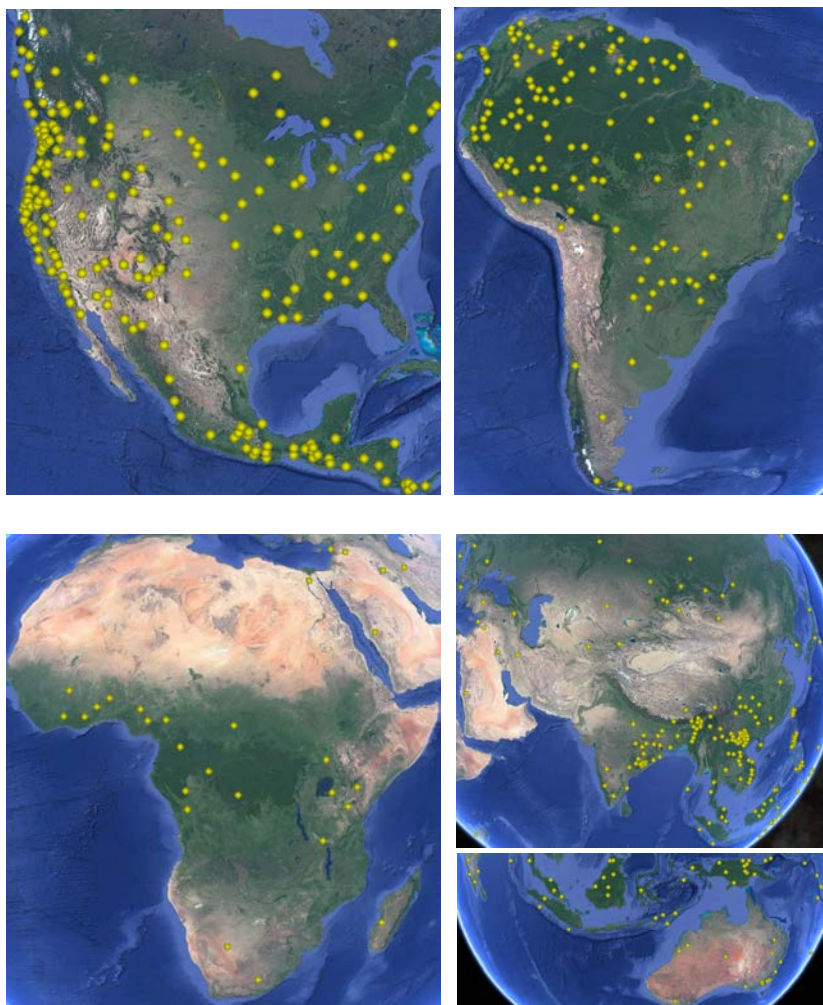


Figure 8. Flood Legends Around the World.³⁹

Genesis vs. Flood Myths from the Ancient Near East (ANE)

In addition to the Epic of Gilgamesh (covered separately below), the Ancient Near East has five primary Flood accounts that echo the original, Biblical version. These include: the Enuma Elish⁴⁰ (about 1,100 BC), Simmonds Ark Tablet⁴¹ (1,700 BC), the Sumerian Kings List⁴² (2,000 BC), Atrahasis Epic⁴³ (1,800 BC), and the Eridu Tablet⁴⁴ (1,600 BC).

Something *amazing* emerges when comparing these Flood accounts to the Biblical one: Eight of the main features of the Biblical account are included in each! See Figure 9 below.

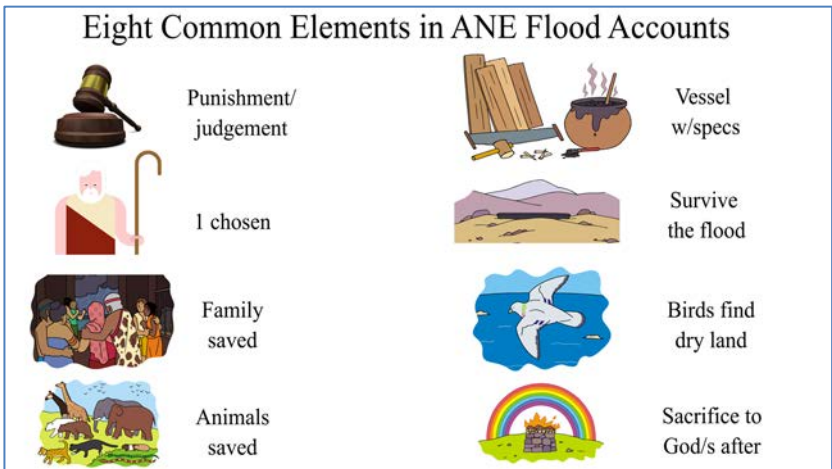


Figure 9. Eight Common Elements in the Ancient Near East Flood Accounts.

Some of these accounts talk about God or “gods” punishing man and one man being chosen to bring either himself or his family to safety and (in every case) all the animals onto a vessel to survive the flood. Afterward we have various details about this chosen man sending a dove or a raven (just like the Biblical text). When the person gets off the Ark, in almost every story he offers a sacrifice to please God or “gods.” While many of these elements are not in the same chronological

order as the Bible's account, they include the same unique events and similar major details.

While all these accounts pre-date the *version* of the Bible that we possess today, the Bible comes across more historical and more believable. While these myths are complex and they differ in the details, where they *all* agree is the similar core history that must have been passed on after the Flood. As civilization spread and generations began to go their own way, they developed their own myths which kept that common history but added to it in their own ways.

The Bible, on the other hand, doesn't do it that way. The Bible's account is not a perception, but rather the writer is saying, "this is the way it happened" and it's laid out in an orderly fashion. The Bible provides historical timeframes, genealogies of all the key players before and after the Flood, and clear, feasible dimensions of the Ark that are quite literal and actually work. The Bible lays out exact dimensions of something that is hydrodynamically stable and large enough for boarding all animal kinds.

By contrast, the other flood myths include strange, unfeasible ark proportions (like a square box or a round basket), timelines that are unreasonable, and other characteristics of the Biblical account that are re-framed as exaggerations. It's clear these storytellers have the idea of a boat, but they're too far from the source information and they tended to exaggerate and change their own versions of the story.

The Bible vs. the Epic of Gilgamesh

When comparing the Genesis Flood to the Epic of Gilgamesh, several clues point to the Biblical account being the *original, historical* account. First, the 12 tablets of the Epic of Gilgamesh we have today were found in 1853 and dated to around 650 BC, although parts of the story existed in earlier, fragmentary versions.⁴⁵ Because the story had many of the same elements as the Genesis account, skeptics believed that Gilgamesh preceded the Biblical account, negating the Genesis

account as just a spin-off. Fortunately for Christians, however, there are major clues that point to the Biblical account as the accurate one, and Gilgamesh as a later work of fiction that incorporated legendary elements of a flood within a cultural fantasy. Here are the reasons why.

First, we have the feasibility of the Gilgamesh version of the Ark, described as a massive, unstable cube that was about 200 feet on each side with six decks that divided it into seven parts. Gilgamesh supposedly built this vessel—which was over three times the size of the Biblical Ark, in just a week. How would something like this fare during a worldwide Flood? It would obviously tumble, killing or maiming its passengers. That’s obviously quite different than the biblical Ark which had a 7-to-1 length-to-width ratio which is very similar to many of today’s ocean barges, making it a feasible design for staying afloat during the Flood. Scripture provides clues that Noah and helpers took over 55 years to build the Ark.⁴⁶

The second key for determining which of these Flood accounts is the original is the *duration* of the Flood provided by each. The Gilgamesh flood lasted a mere six days, whereas the Genesis Flood lasted 371 days. Both accounts claim the Flood was worldwide, but how could water cover earth in just six days? A floating 200-foot cube and six days for worldwide inundation certainly stretch credulity.

The next consideration is the reasons for the Flood given by each of the two accounts. In the Genesis account, God’s judgment is *just*—he was patient with utterly wicked mankind for 120 years before sending the Flood and showed mercy to the last righteous family. In the Gilgamesh account, the Flood was ordered by multiple, self-centered squabbling ‘gods’ that were ‘starving’ without humans to feed them sacrifices. These two are quite different!

Finally, there are several other parts of the Gilgamesh account that are obviously mythical, such as Gilgamesh being 2/3rds divine and 1/3rd mortal. After oppressing his people, Gilgamesh and others call upon the ‘gods’ and the sky-god Anu creates a wild man named Enkidu to fight Gilgamesh. The battle

is a draw, and they become friends. Gilgamesh apparently also encounters talking monsters and a “Scorpion man” in his journeys.

These stark differences between Genesis and Gilgamesh accounts highlight the feasibility and priority of the biblical one. The Gilgamesh account was written 800 years⁴⁷ *after* Genesis and describes a cube-shaped Ark 200 feet on each side tumbling around in the ocean in a six-day flood put on by the “angry, fighting gods” that sent it. The Bible’s Flood was recorded earlier, has an Ark sealed on the inside and out with dimensions that are on par with today’s ocean liners, lasted a full year, and was sent to judge an Earth that deserved it.

Many myths are based on historical accounts, but they get embellished over time, becoming more and more imaginative as the story is repeated over generations. This is exactly what we see with flood myths like Gilgamesh—they take the original, historical account (the Biblical Flood) and grow it into a mythical, fantastic story over time.

For example, the earlier version of the Gilgamesh Flood account⁴⁸ clearly identifies the flood as a local river flood, with the dead bodies of humans filling the river “like dragonflies” and moving to the edge of the boat “like a raft” and moving to the riverbank “like a raft.” Centuries later, this gets exaggerated into a global, worldwide flood where humans killed in the flood “fill the sea” like a “spawn of fish.”

Both accounts have a God or “gods” that are sending judgment, describe a worldwide inundation, have an Ark built to specific dimensions that are loaded with surviving humans and animals, and land just a few hundred miles apart from each other after using birds as a test to find dry land. Myths often grow from historical to being more mythical, but they almost never develop in the reverse, becoming more truthful and accurate over time. While these accounts mirror each other in so many ways, which account is the original, historical one? The feasible one, of course. While both accounts describe plenty of divine intervention, only the Biblical ark size, shape, function, build time, and flood duration makes sense.

Table 2 provides a comparison between the Genesis Flood Account and the Epic of Gilgamesh by looking at 24 different characteristics of each. A careful study reveals the Genesis account as the feasible, historical one, and the Gilgamesh account as the mythical one that is several steps removed from the original, Biblical account.

Table 2. Comparison between Genesis and Gilgamesh.⁴⁹

Comparison of Genesis and Gilgamesh		
FACTOR	GENESIS	GILGAMESH
Extent of flood	Global	Global
Cause	Man's wickedness	Man's sins
Intended for whom?	All mankind	One city & all mankind
Sender	Yahweh	Assembly of "gods"
Name of hero	Noah	Utnapishtim
Hero's character	Righteous	Righteous
Means of announcement	Direct from God	In a dream
Ordered to build boat?	Yes	Yes
Did hero complain?	Yes	Yes
Height of boat	Several stories (3)	Several stories (6)
Compartments inside?	Many	Many
Doors	One	One
Windows	At least one	At least one
Outside coating	Pitch	Pitch
Shape of boat	Rectangular	Square
Human passengers	Family members only	Family & few others
Other passengers	All species of animals	All species of animals
Means of flood	Ground water & heavy rain	Heavy rain
Duration of flood	Long (371 days)	Short (6 days & nights)
Test to find land	Release of birds	Release of birds
Types of birds	Raven & three doves	Dove, swallow, raven
Ark landing spot	Mountain -- Mt. Ararat	Mountain -- Mt. Nisir
Sacrificed after flood?	Yes, by Noah	Yes, by Utnapishtim
Blessed after flood?	Yes	Yes

Flood Legends from North and South America

Nick Liguori summarizes over 300 legends from indigenous tribes that provide overwhelming support to this massive, worldwide “telephone game” when it comes to the Flood. He summarizes his findings by stating:

We have heard the testimony of over 300 tribes from North and South America. From the Ute people of the slopes of the Rockies, to the jungles of South America—from the Inuit people of northern Arctic coasts, to the Yaghan tribes of the southernmost parts of the hemisphere—all of these tribes have given their testimony. Although their stories differ in many ways, they all agree on the fact that a great flood happened long ago. When we examine the recurring details—the forewarning (almost always given to an old man), the great canoe, the saving of pairs of animals, the landing on a high mountain, the raven and the dove sent in search of land, the freshly plucked leaf, the sacrifice, the rainbow, and the godless ways of man that provoked the Flood—they all match those of the Genesis Flood account.

Drilling deeper into these flood legends reveals that 18 of the North American Flood traditions confirm the Genesis account regarding the raven and dove being sent, with the dove returning with a fresh leaf in its beak, 20 agree with Genesis regarding the cause of the Flood (God’s judgement upon man’s evil ways), and 27 agree with Genesis that the ark was canoe-like in shape.⁵⁰ Liguori also points out that *zero* of the legends agree with the Epic of Gilgamesh versions on these same details, further indicating the Bible as the real, historical version. Isn’t it amazing that groups separated by thousands of miles preserved such similarities to the original Genesis account?

Let’s take a tour through Liguori’s “Top 11” list from these 300+ native flood legends⁵¹:

- 1) Mandan (North Dakota): In the 1830s, George Catlin stood in amazement as he was privileged to watch the annual ceremony of the Mandan tribe of North Dakota.

This ceremony, which the Mandan have solemnly observed since ancient times, vividly preserved the memory of Nu-mohkmunk-a-nah, “the only man,” the Noah of the Mandan tribe. This man, they told, survived the flood and landed his big canoe on a mountain far to the west. This elaborate ritual demonstrated a memory of the flood very similar to the Genesis account even to several details. For example, Catlin described the “bull dance,” which was performed 40 times during this ceremony, “the exact number of days that it rained upon the earth, according to the Mosaic account.” The Mandans also highly esteemed the turtle dove, which they say returned to their Noah carrying a willow bough in its mouth as a sign of the retreating waters.

- 2) Hualapai (Arizona): The Hualapai possess ancient rock carvings at Spirit Mountain, long predating the arrival of Europeans, which recount the flood and depict eight survivors. They narrate the history thus: “Rains fell on the earth for 45 days. The rising waters wiped out all peoples with the lone exception of an old man atop Spirit Mountain.” Then a bird was sent out, and on its second flight it returned “with grass in its beak to inform the man that the waters had receded.” This remarkably matches what Genesis says: “again he [Noah] sent the dove out from the ark. Then the dove came to him in the evening, and behold, a freshly plucked olive leaf was in her mouth; and Noah knew that the waters had receded from the earth” (Genesis 8:10–11).
- 3) Cochiti (a pueblo people of New Mexico): The Cochiti told that a great boat was built and that “they began to load it with much corn and they took all the different animals into the boat with a white pigeon.” After the rains stopped, the chief said, “We will send the white pigeon to see if the earth is uncovered again.” The pigeon returned carrying a flower, taken as a sign that

the flood was ending. Additional details (from *Echoes of Ararat*) include: “Long ago the people knew that there would be a great flood. Up in the north among the high mountains they built a great boat. When it was nearly time for the water to rise, they began to load it with much corn and they took all the different animals into the boat and a white pigeon. When everything was ready the sons of the builder of the boat and their sons came into the ship. When they were all in, they put pitch all over the cracks of the boat. The flood came. The boat floated on the water. The people that were left on the earth fled to the highest mountain to try to escape from the waters. The ones who could not get to the high mountains were all drowned and floated about on the waters of the flood. The ones who climbed the mountains were overtaken by the water and turned into rocks. Some were embracing each other, and some held one another on their laps, and there they are still just as the water overtook them. Every living thing on the earth was drowned, but the boat still floated. When the waters went down, the boat grounded on a high place in the mountains to the north. Then they knew the waters were subsiding. The chief said to the rest, “We will send the white pigeon to see if the earth is uncovered again.” The white pigeon was let out. At last he returned and told the chief, I have seen the earth and the water has gone down. But it is a terrible thing to see. The people are all drowned and their bodies piled upon the ground.” In the boat there was also a crow as white as the pigeon. They sent out the crow to look over the earth. She went out and saw the earth as the pigeon had. But she flew down to the dead bodies and began to pick out their eyes. When she came back to the boat, they knew she had done mischief. They said to her, “What is it that you have done when you were out flying over the earth?” You were white and now your feathers are all black.” Again they let the pigeon out to see if the earth was firm

again. She went out and as she was flying she saw a flower in blossom. She picked the flower for a sign that the earth was getting firm again, and she took it back to the boat. She said to the owner of the boat, “The plants are all growing again, and I settled on the ground and did not sink into the mud. This flower is a sign of the growing of the plants.” So the people on the boat were saved from the first-ending-of-the-world-by-flood.”

- 4) Yakama (Washington State): The Yakama spoke of a great flood that came, “one time in the early suns, back near the beginning.” Mankind provoked the Creator with their evil ways, but a good man received a word from God that a flood was coming. “I have heard from the Land Above, the land of the spirits, that a big water is coming—a water that will cover all the land. Make a boat for the good people. Let the bad people be killed by the water.” So they made a boat out of the largest cedar tree, and the good people were saved. Another related quote provided in *Echoes of Ararat* include: “When the earliest missionaries came among the Spokanes, Nez Perces, and Cayuses, who with the Yakimas live in the eastern part of the Territory, they found that those Indians had their tradition of a flood, in which one man and wife were saved on a raft. Each of those three tribes also, together with the Flathead tribes, has their separate Ararat in connection with this event” (Myron Eells, ca. 1877).
- 5) Ottawa (Canada): The Ottawa, around the year 1770, told the fur trader Alexander Henry about their ancestor Nanibojou, their “Noah,” who “lived originally toward the going down of the sun, where being warned, in a dream, that the inhabitants would be drowned by a general flood, produced by heavy rains, he built a raft, on which he afterward preserved his own family, and all the animal world without exception. According to his

dream, the rains fell, and a flood ensued. His raft drifted for many moons, during which no land was discovered. Liguori points out: Notice the similarity to the Mandan tradition, among many others. Those who would say “this tradition is inauthentic, the product of missionary influence” are confronted with the difficulty of explaining why these traditions are consistent amongst themselves. The general point is this: Aboriginal traditions of the flood match Genesis on various points, but they also contain their own local peculiarities: a woman who came from the sky, or a muskrat that was sent diving for earth, or a quarrel that started the flood, or a trickster. And when we find these peculiarities *consistently* among tribes of a given region, or of a common language family, these peculiarities point to their genuineness. Skeptics likewise cannot account for the very early date that many of these were collected, that many occur in writing or in petroglyphs, and that, indeed, in other parts of the world they predate both the Christian era and Christ Himself.

- 6) Toltecs (Mexico): The Toltecs had historical paintings and traditions that told of an ancient flood, which they said occurred 1716 years after the creation of the world (this is within 100 years of the biblical timeframe). Only a few escaped the flood, floating inside a “toplipetlacali,” an enclosed vessel. After the flood, they said that “men multiplied and made a very high zacuali ... which means the highest tower, at which they sought to find shelter when the Second World would be destroyed. In time, the languages were changed and, not understanding each other, the people went to different parts of the world.” They said they arrived in Mexico “520 years after the flood had passed, which are five ages.” Regarding the various Mexican nations having paintings of the flood, Alexander de Humboldt states: “Of the different nations that inhabit Mexico, paintings

representing the deluge of Coxcox are found among the Aztecks, the Miztecks, the Zapotecks, the Tlascaltecks, and the Mechoacanese. The Noah, Xisuthrus, or Menou of these nations, is called Coxcox, Teo-Cipactli, or Tezpi. He saved himself conjointly with his wife, Xochiquetzel, in a bark, or, according to other traditions, on a raft of “ahuahuete” (*Cupressus disticha*). The painting represents Coxcox in the midst of the water, lying in a bark. The mountain, the summit of which, crowned by a tree, rises above the waters, is the Peak of Colhuacan, the Ararat of the Mexicans. The horn, which is represented on the left, is the phonetic hieroglyphic of Colhuacan. At the foot of the mountain appear the heads of Coxcox and his wife. ... The men born after the deluge were dumb: a dove, from the top of a tree, distributes among them tongues, represented under the form of small commas. We must not confound this dove with the bird which brings Coxcox tidings that the waters were dried up. The people of Mechoacan preserved a tradition, according to which Coxcox, whom they called Tezpi, embarked in a spacious “acalli” with his wife, his children, several animals, and grain, the preservation of which was of importance to mankind. When the great spirit, Tezcatlipoca, ordered the waters to withdraw, Tezpi sent out from his bark a vulture, the “zopilote” (*Vultur aura*). This bird, which feeds on dead flesh, did not return on account of the great number of carcasses, with which the earth, recently dried up, was strewed. Tezpi sent out other birds, one of which, the hummingbird alone, returned, holding in its beak a branch covered with leaves. Tezpi, seeing that fresh verdure began to clothe the soil, quitted his bark near the mountain of Colhuacan.”

- 7) Aztecs (Mexico): The Aztecs too have ancient paintings that depict the flood, showing one couple safely floating inside a hollow tree as the world was destroyed by

water. In another ancient pictorial manuscript from Mexico (Codex Vaticanus 3733), we find the depiction of a woman talking to a serpent and two children behind the serpent, contending with each other. The similarity of this painting to Genesis is obvious, and it is confirmed by the literature and traditions from Mexico. As Humboldt explains, the woman is Cihuacohuatl, the “woman of our flesh,” and the “serpent woman.” She is considered the mother of the human race, and she is “always represented with a great serpent.” She is considered the mother of two twin children. She is also considered to have “fallen from her first state of happiness and innocence.” Notice that Eve appears in many tribes’ traditions, here as talking with a serpent. In other nations’ traditions, we get a glimpse of her as falling from heaven for having sinned, in others as being tempted by a serpent or a monster, in others as causing the flood, in others as being bit by a snake. We have many traditions not only of the flood, but of Creation, the Garden of Eden and the Fall, Cain and Abel, and the Tower of Babel.

- 8) Panama: The natives of Panama told the earliest Spanish colonizers that “when the Flood occurred, a man escaped in a canoe, with his wife and sons, and that from him the people of the world multiplied.” This comes from a record from the 1500s, quoted by Herrera in his work *Décadas* (1601). Other data from Central America: A record of an interview in 1528 attests to the native Nicaraguans’ knowledge of the ancient flood too. The Kuna and Guaymi recall the divine judgment by which “all the evil of the world was washed away by the flood,” when God “destroyed it with water, and killed all the people,” while taking care to “preserve the seed of man.”

- 9) Taino and Carib people (Caribbean Islands): The native tribes of the Caribbean Islands also have their flood traditions, recorded as early as 1493 by Columbus' companions. "The Master of Spirits," said the Caribs, "became angry at the Caribs of that time who were very wicked." So he sent the flood, from which only a few managed to survive. They have a memory of the serpent in the garden of Eden as well. Of the Taino people of Cuba, Juan de Torquemada wrote, "The old people, of more than 70 and 80 years, back when our people [the Spanish] first came to that island, said that an old man, knowing that the flood was to come, made a great boat. He placed inside it many animals, along with his family. He sent out a raven, which did not return, because it ate from the dead floating corpses. Then he sent a dove, which returned singing and carrying a twig with a leaf."
- 10) Tamanacs (Venezuela): The tribes along the great Orinoco River in Venezuela have preserved the memory that "at the time of the great waters, when their fathers were forced to have recourse to boats, to escape the general inundation, the waves of the sea beat against the rocks of Encaramada." After taking recourse to boats, they add that "a man and a woman saved themselves on a high mountain, called Tamanacu," and that after the flood they threw palm fruits behind them, which produced men and women, who repopulated the world." This tradition is not limited to the Tamanacs, but it "makes part of a system of historical tradition, of which we find scattered notions among the Maypures of the great cataracts; among the Indians of the Rio Erevato, which runs in to the Caura; and among almost all the tribes of the Upper Orinoco." "Hieroglyphic figures are often seen at great heights, on rocky cliffs," Humboldt added, which memorialize this flood and how the survivors repopulated the earth. Notice that "Missionary influence" doesn't really work when you have rock

carvings and persistent traditions across many tribes over a vast area.

- 11) Kágaba (Colombia): The Kágaba or Kogi people live in the Sierra Nevada de Santa Marta mountains of northern Colombia. As told to Konrad Preuss [ethnologist] in 1914 or 1915, one of their most ancient traditions includes an account of the Flood: “After many centuries had passed, this world produced men with unnatural inclinations, of such a type that they cohabited with all types of animals. Mothers had lust for their sons, and fathers lusted for their daughters, and so did brothers for their sisters. The god Zantana saw this and opened the doors of the sky, so that it would rain for four entire years. The chiefs saw that he was going to do this. Then Chief Seizankua built a magical boat and put all types of animals and other things inside it: four-footed animals, the birds, and all types of plants. After this, the older brother Mulkueikai entered the magical boat and closed the door. Then, it began to rain with water red and green in color. It rained for four years. The rain extended, here in this world, forming lakes everywhere. The older brother Mulkueikai was at that time in the magical boat, which had come to rest on the peak of the Sierra Negra (a mountain to the east of Villanueva). There, he went out, not far, to the surrounding area and stayed on the mountain nine days. After these nine days, it took nine centuries until the lakes had dried, as the chiefs have passed down to us.”

Other Flood Legends from Around the World

Flood legends are *everywhere* and span *thousands* of years in *most* cultures. We’ll review a snapshot of these next, starting with the county that has perhaps the most convincing flood legends: China.

China

China is *rich* with Flood history. Not only is there an obvious Genesis connection in the actual content of their word pictures used in their early writing, there is a true abundance of flood legends from most areas in China. Let's take a tour through both of these sources of evidence.

Ancient Chinese Writing and the Genesis Connection

The oldest Chinese writing we still have today is found on bones called *oracle bones*. The ancient writers recording Chinese history on these bones had an *obvious* connection to Genesis. For example, the ancient Chinese word *boat* is composed of symbols meaning “vessel,” “eight,” (note there were eight people on the Ark) and “mouths.” Ethel Nelson documents the amazing Genesis-Chinese language connection in the works titled *The Discovery of Genesis* and *Oracle Bones Speak*. Institute for Creation Research (ICR) writer Dr. James Johnson highlights some of these key connections in his article “Genesis in Chinese Pictographs.”⁵²



Figure 1. "Create."

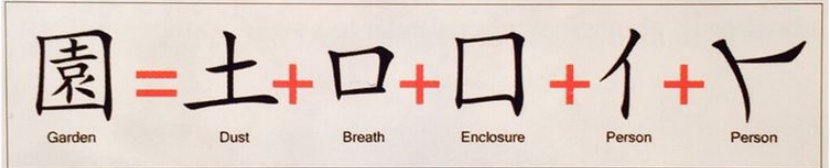


Figure 2. "Garden."



Figure 3. "Boat."



Figure 4. "Flood."

Figure 10. Genesis Origins of Chinese Pictographic Words.

Dr. Johnson summarizes this stunning connection below:

The pictographic word for “to create” in ancient Chinese is composed of the components “to speak/talk” and “walking”—consistent with the Genesis account of God using His mouth to create and Adam being created fully mature and thus able to walk.

Recollection of the Garden of Eden is also evident in the ancient Chinese word for “garden.” If this does not link to the Genesis account, why else would the early Chinese combine the ideas of “two persons” who received the “breath” of life after the first one of those two persons (Adam) was made from the “dust” of the earth?

The pictographic characters for “boat” and “flood” recall information recounted in the adventures of Noah and his Ark-borne family, as recorded in Genesis 6–9. These Chinese characters recall that there were exactly eight survivors of the worldwide Flood.

Dr. Johnson concludes by stating: “Although the illustrations above only serve to introduce this fascinating trove of pictographic philology (word study), they do show what forensic professionals call a “beyond-genuine-dispute” witness of God’s historic workings in Chinese history, producing a form of providential history and evidence of biblical truth.”

China has multiple flood legends from numerous people groups in the country. Below are a few interesting ones that have strong connections to Genesis (compiled by Nick Liguori, author of *Echoes of Ararat*).

The Han are the majority people group in China. They have a knowledge of the Deluge recorded in their ancient writings. It is no simple task to read and interpret ancient Chinese history. There is also much that we do not know, much still being debated by Chinese scholars, and there are texts inaccessible to us. I lean on the insights of others on this topic. The historian Sharon Turner wrote:⁵³

“The Chinese literature has several notices of this awful catastrophe. The Chou-king [Shoo-King], the history of China written by Confucius, opens with a representation of their country being still under the effect of the waters. ... Yao, their most ancient sovereign, acknowledged by Confucius, is introduced abruptly as saying to his ministers, “Alas! the deluging waters are spreading destruction. They surround the mountains. They overtop the hills. They rise high, and extend wide as the spacious vault of heaven.”⁵⁴ The opposing school of the Tao-see also speak of **the Deluge as occurring under “Niu-hoa,”** whom they make a female. The seasons were then changed: day and night confounded: **great waters later overspread the universe, and men were reduced to the condition of fishes.**⁵⁵ Other Chinese writers refer to the same event. ... The celebrated Kong-in-ta adds, that **the waters overwhelmed the animals and all habitations.**⁵⁶ Tcha-che alludes to them, and Mong-tsee remarks, “Under Yao, the empire was not yet formed. **The stagnant waters of the Deluge still covered the plains,** and what was not under water was covered with trees.”⁵⁷ By cutting large canals, Yao made the country habitable.”⁵⁸

One of the potential challenges with this account is that the Shoo-King or “Book of History” associates this devastating flood with the Yellow River. That being the case, we must ask whether this book is describing a global flood or a local one. James Legge (1815–1897), who himself translated the Shoo-King into English, addressed this issue in his introduction, saying that the Shoo-King seems to contain **an imperfect reference to the global Flood:**

But now, according to the views which I have sought to establish, the labors of Yu are not history, but myth. He did not perform the prodigious achievements on the mountains and rivers which are ascribed to him. . . . The labors of Yu being denied, no place is left in his time for the deluge of Yao. The utmost that can be allowed is an inundation of the Ho [Yellow River], destructive enough, no doubt, but altogether unfit to be described in the words put into the mouths of Yao, Shun, and Yu about it. Did the compilers of the first Parts of the Shoo draw upon their fancy for the floods that embraced the mountains and overtopped the hills and assailed the heavens? **Or did they find them in the tradition of the deluge by which ‘all the hills that were under the whole heaven were covered.’** I prefer to take the suggestion in the latter question as the fact, and therefore think that in the description of the inundation of Yao’s time **we have an imperfect reference to the deluge of Noah.**⁵⁹

A Chinese scholar named Yang Lihui noted that the Chinese have “historicized” or “edited” some of their ancient texts, to make them more rationally or philosophically

palatable. This may be one reason for the imperfection of the Shoo-King's account of the Flood.

Miao (China)

The Miao are a people group inhabiting southwest China, composed of many subtribes with differing languages and customs. Their oral traditions are remarkably well-preserved, containing genealogies which appear to go back to Japheth. They have been noted by surrounding tribes for their lighter hair color and skin tone. Blonde, light brown, and red hair color have been observed among them, leading some historians to suggest they are of Indo-European origin, perhaps having migrated from Persia or Central Asia. Their use of songs in couplet form, to tell their genealogies and traditions, has helped them to be preserved quite accurately.⁶⁰

One of the Miao tribes told this Flood tradition to a missionary named Edgar Truax, who labored among them from the 1920s to the 1940s.

So it poured 40 days in sheets and in torrents.
Then 55 days of misting and drizzle. **The waters surmounted the mountains and ranges. The deluge ascending** leapt valley and hollow. An earth with **no earth upon which to take refuge!** A world with no foothold where one might subsist! The people were baffled, impotent and ruined, Despairing, horror stricken, diminished and finished. **But the Patriarch Noah was righteous. The Matriarch Gaw Bo-lu-en upright. Built a boat very wide. Made a ship very vast. Their household entire got aboard and were floated, the family complete rode the deluge in safety. The animals with him were female and male. The birds went along and were mated in pairs.** When the time was

fulfilled, God commanded the waters. The day had arrived, **the flood waters receded.** **Then Nuah liberated a dove from their refuge,** Sent a bird to go forth and bring again tidings. The flood had gone down into lake and to ocean; The mud was confined to the pools and the hollows. There was land once again where a man might reside; there was a place in the earth now to rear habitations. Buffalo then were brought, **an oblation to God,** Fatter cattle became sacrifice to the Mighty. **The Divine One then gave them His blessing;** their God then bestowed His good graces.⁶¹

They also have this tradition of the Tower of Babel, and their genealogy. Note the similarity to the Genesis names of Ham, Shem, Cush, Mizraim, Japheth, Elem, Asshur, and Gomer:

Lo-han then begat Cusah and Mesay. Lo-shan begat Elan and Nga-shur. Their offspring begotten became tribes and peoples; their descendants established encampments and cities. Their singing was all with the same tunes and music; **their speaking was all with the same words and language.** Then they said let us build us a very big city; **let us raise unto heaven a very high tower.** This was wrong, but they reached this decision; not right, but they rashly persisted. **God struck at them then, changed their language and accent.** Descending in wrath, He confused tones and voices. One's speech to the others who hear him has no meaning; he's speaking in words, but they can't understand him. So the city they built was never completed; the tower they wrought has to stand thus unfinished. In despair then they separate

under all heaven, **they part from each other the globe to encircle.** They arrive at six corners and speak the six languages. ... **The Patriarch Jahphu** got the center of nations. The son he begat was **the Patriarch Go-men.** Who took him a wife called the Matriarch Go-yong. Their grandson and his wife both took the name Tutan. Their descendants are given in order as follows: Patriarch Gawndan Mew-wan, Matriarch Cawdan Mew-jew; Patriarch Jenku Dawvu, Matriarch Jeneo Boje; Patriarch Gangen Newang (wife not given); Patriarch Seageweng, Matriarch Maw gueh. Their children, eleven in number, was each the head of a family. Five branches became the Miao nation. Six families joined with the Chinese.”⁶²

Their tradition of Creation also seems to refer to Genesis themes:

On the day God created the heavens and earth.
On that day He opened the gateway of light.
In the earth then He made heaps of earth and of stone.
In the sky He made bodies, the sun and the moon.
In the earth He created the hawk and the kite.
In the water created the lobster and fish.
In the wilderness made He the tiger and bear,
Made verdure to cover the mountains,
Made forest extend with the ranges,
Made the light green cane,
Made the rank bamboo.

...**On the earth He created a man from the dirt.**
Of the man thus created, a woman He formed.
Then the Patriarch Dirt made a balance of stones.
Estimated the weight of the earth to the bottom.
Calculated the bulk of the heavenly bodies.

And pondered the ways of the Deity, God.
The Patriarch Dirt begat Patriarch Se-teh.
The Patriarch Se-Teh begat a son Lusu.
And Lusu had Gehlo and he begat Lama.
The Patriarch Lama begat the man Nuah.
His wife was the Matriarch Gaw Bo-lu-en.
Their sons were Lo Han, Lo Shen and Jah-hu.
So the earth began filling with tribes and with families.
Creation was shared by the clans and the peoples.⁶³

This remarkable account is also attested by the early missionary Samuel Clarke (1854–1946), who labored for over 30 years in the Guizhou province:

The Miao of that region [Guizhou Province] say that **the land was all divided among the three sons of Noah, who were the ancestors of the Miao, Chinese, and No-su.** The Miao are the descendants of the eldest son. Unfortunately when the land was divided, they only used straw ropes for boundaries, while the Nosu used stones. A fire occurred which burnt up their boundary ropes, but left the No-su stones uninjured. Thus they lost their land!⁶⁴

Maori (China)

The Maori priests meticulously guarded their ancient historical traditions. Around the 1860s, they shared with one John White a stunning tradition of the Flood, matching the Genesis account in several details. They told that God sent the Flood because “evil prevailed everywhere,” and that two righteous people “built a house on the raft, and put much food into it.” After the Flood, which drowned everyone except those saved on the giant raft, the survivors got off and offered a sacrifice to God, and “then looking up, they beheld the rainbow.”⁶⁵

Nosu (China)

The Nosu are a tribe that has lived in southwestern China since ancient times. Samuel Clarke heard this Flood tradition from them in the late 1800s:

Some of the No-su, but not all of them, have a legend of the Creation, but all of them have a legend of the Flood. They manifestly trace their genealogy from Noah. They say a certain man had three sons. He received warning that a flood was to come upon the earth, and the family discussed how they should save themselves when this calamity came upon them. One suggested an iron cupboard, another a stone one, but the suggestion of the third that they should make a cupboard of wood and store it with food was acted upon. Thus the family was saved; but they say nothing about animals.⁶⁶

Other Countries Around the World with Flood Legends

Nick Liguori's research has also uncovered additional Flood legends from around the world that will be coming out in the second volume of his *Echoes of Ararat* work. Below is a preview of a few of the key flood legends.

Bunuba (Western Australia)

The Bunuba are a small tribe from the Kimberley Region of Western Australia. Howard Coates, a missionary who spent over 50 years working among the aboriginal people groups, beginning in the 1930s, collected this Flood tradition from a Bunuba man named Jimmy Bird.

Long, long ago there was a great flood. It originated from the fact of some children who found the ‘winking’ owl in a tree and plucked out all its feathers. They forced a grass reed through its nose and treated the bird most shamefully. The bird flew without wings, into the heavens and showed himself to Ngowungu, the Great Father. Ngowungu **became very angry and decided to drown the people.** Later the people saw a small cloud rising which grew bigger and bigger till it spread all over the sky. The thunder began to roll and crash and the people were greatly afraid. With the rain and thunder was a terrible wind which broke great limbs off trees and rooted up others. During this terrible storm there was a noise above the awful crashes of thunder. This noise was coming from the north. The salt water, the sea, came pouring over the ranges from the north. **The flood rose higher and higher till all the land was covered except the tops of two or three mountains.** From further west a man and his wives with a dog were battling their way **in a canoe when a bird with a leaf in its mouth** flew in front of them showing them the way to Mt. Broome. **They eventually reached Mt. Broome and landed there** where some other survivors were. Then Djabalgari, the great left-handed man incised his little finger and let the blood trickle down into the flood waters. The waters began to go down and eventually disappeared off the country. **All other people were drowned.**”⁶⁷

Naxi

The Naxi or Mosu live in the eastern Himalayan foothills on the border of China, Tibet, and Southeast Asia.

Their pictographic records, called Dongba, written by their priests, preserve a history of the Flood. The record which is called *The Descent of Man*, also called *Creation of the World*, and *The Migration*, attributes the Flood to the anger of the gods at the incestuous marriages by humans. **One man, named Congrenlien, foresaw the coming flood and knew how to survive it. He alone survived**, and later married Cunhongbaobai, the daughter of the God of Heaven, having passed a serious of difficult tests by her father, including obtaining three drops of a tiger's milk. The couple then returned to earth, **where they had three sons**, who were unable to speak until their father **made the required Sacrifice to Heaven** to honor their heavenly ancestors. **These three sons were the ancestors of the Tibetan, Naxi and Bai peoples.**⁶⁸

Lifou (Loyalty Islands)

Lifou is the largest of the Loyalty Islands, a small archipelago to the east of Australia, owned by France. These islands were not discovered by Europeans until about 1803. A Christian mission was started there in the 1840s. The missionary Samuel McFarlane published a few of their traditions in the 1873 work, *The Story of the Lifu Mission*.

As McFarlane told, "Many of the Lifuan traditions bear a striking resemblance to the records of sacred history."⁶⁹ These include traditions of the origin of sin and death, the Flood, and the Tower of Babel. Regarding the origin of sin and death, in their version of the Garden of Eden, we read as follows. The "old chief" is their version of the serpent, or Satan:

The natives have no idea of the origin of the first man; they only know that his name was Walelimeme; that he had a wife and sons, and that he lived in peace amidst plenty. At that time there was not any sickness or death, and it was not necessary to work in plantations, because the food grew spontaneously and in abundance. It

appears that the sons of old Walelimeme had the power of changing themselves into birds, beasts, and reptiles at pleasure. On one occasion the eldest son, in the form of a rat, went on an exploring expedition, boring his way through the earth until he came to the residence of an old man, the chief of the lower regions. This old chief lived upon yams, of which there were not any at that time on Lifu. The Lifuan observed that the old man kept the yams for himself, and offered him other food; he asked to taste the yams, but was told that they were for the old chief alone, and that to take them would cost him his life. The son of Walelimeme, however, did not believe this, and watching his opportunity picked up a yam, and made for the surface of the earth again. On his way he tasted the yam and found it very good; on his arrival at home, he called one of his brothers and told him all; this brother tasted the yam and expressed his delight at the discovery of such excellent food. They then went to their father, who with the whole family tasted and were all equally pleased at the new discovery.⁷⁰

After this, they determined to go and steal a quantity of yams from the old chief below, and to plant them on earth. So they did, but they were discovered before they could escape:

The old chief was angry with them, and told them that as they had taken his yams, he would henceforth live upon human flesh. Death should reign on Lifu in order to supply him with food. It was then that people began to die, as the Lifuans supposed, to supply the old chief with human flesh in exchange for his yams; ... It was then that labor commenced, for having begun planting

yams they found it necessary to cultivate every other article of food: nothing would grow spontaneously as before, but weeds. Thus yams, their principal and much-liked food were introduced, but with them came labor and death.⁷¹

Regarding their knowledge of the global Flood, McFarlane wrote:

They have a tradition substantially the same as the scripture account of the flood. It is that an old man named Nol (the name resembles Noah) made a canoe inland; the natives laughed at him for making it so far from the sea, declaring that they would not help him to drag it to the coast; but he told them that it would not be necessary, for the sea would come to it.

When it was finished the rain fell in torrents and flooded the island, drowning everybody. Nol's canoe was lifted by the waters and borne along by a current; it struck a high rock which was still out of the water, and split it in two. (These two rocks are still pointed out by the natives; they form the heads of a fine bay on the north side of the Island.) The water then rushed into the sea and left Lifu "high and dry."⁷²

Finally, their tradition of the Tower of Babel:

They also speak of a time when their forefathers assembled at a place near my station to build, or rather erect a scaffolding which should reach to the clouds. They had no idea of works in stone, hence their "tower of Babel" was raised by tying stick to stick with native vines. They labored on

undaunted by the sad consequences of the discovery and stealing of yams underground; perhaps they anticipated a more agreeable issue to their explorations in the heavens. But alas for human expectations; before the top touched the clouds, the ground-posts became rotten, and the whole affair came down with a crash.⁷³

The islanders were amazed when they heard the words of Scripture, which agreed with their traditions. This made them very receptive to the good news of Jesus:

These traditions had their weight in leading the people to embrace Christianity. When the teachers arrived, they listened to the story of the fall, and said, “Yes, this is no doubt true, it is very much like what our fathers told us. They eat the forbidden yam, and death came among us, and we had all to work to provide food. Noah’s ark was Nol’s canoe, and the Tower of Babel was the ancient “ija” or scaffolding.⁷⁴

Bahnar

The Bahnar (or Ba Na) of central Vietnam have lived in the foothills and plains of central Vietnam, trading goods with their neighbors, the Cham, Jarai, and Viet. Like virtually all tribes of Vietnam, the Bahnar have an oral tradition of the Flood, which their shamans shared with Jean-Baptiste-Marie Guerlach around 1882.

Formerly, in the beginning, the kite took up a quarrel with the crab, and gave him a peck on the back so hard that his shell was pierced. We still see the mark of this famous pecking. The crab wanted to take revenge, but how could he draw out the kite who was hiding in the clouds? The

crustacean **made the waters of the sea and the rivers join together, so that they rose to the sky. All living things perished, except two persons, a brother and sister, who took refuge in a bass drum of enormous size. They brought with them a pair of each species of animals, and sealed up the vessel so that it floated on the water like a great boat. The flood lasted seven days and seven nights.** At the end of that time, the brother **heard a hen sing outside.** Where did this chicken come from? **It was sent by the spirits to advise our ancestors that the waters had receded, and that they could go out.** As a captain exits his ship after everyone has landed, the Bahnar version of Noah released the birds from the giant bass drum. The other animals, seeing the door open, took advantage of it to find the best lands in which to dwell.⁷⁵

And the French scientist Henri Mouhot gave a shorthand version which he recorded:

If you ask them respecting the origin of mankind, all they tell you is, that **the father of the human race was saved from an immense inundation by means of a large chest in which he shut himself up;** but of the origin or creator of this father they know nothing. **Their traditions do not reach beyond the Deluge;** but they will tell you that in the beginning one grain of rice sufficed to fill a saucepan and furnish a repast for a whole family. This is a souvenir of the first age of the world, that fugitive period of innocence and happiness which poets have called the golden age.⁷⁶

Muria Gond

In the 1930s, the Muria Gond people living at Rewali, in the Bastar District of the State of Chhattisgarh, shared their tradition which has strong Genesis parallels:

There was a great rain and the first world was drowned. But Gajabhimul put a brother and a sister—their names were Kawachi and Kuhrami—in a **gourd** called Dadha Burka Kawachi. **This gourd drifted to and fro until at last it ran aground on a great rock.** **Mahapurub sent out a crow to search for men. The crow flew and flew and flew:** what did it see? It saw water and a gourd on a great rock. ... From the gourd Kawachi and Kuhrami came out.⁷⁷

How It All Happened: Catastrophic Plate Tectonics

Natural history museums have displays and animations that try to make the case that the continents were once joined in a formation called Pangea and then slowly moved apart to their current locations over tens of millions of years. Well, it's actually quite obvious that the continents were in fact together at one time—evolutionists and most creationists agree on this point. But did they really spread apart slowly over millions of years, or did it happen rapidly—even within just one year—during the Flood of Noah's time? This chapter explains how.

The conventional idea presented in museums is that Pangea began breaking apart about 175 million years ago and the continents have been moving apart slowly to their current locations.⁷⁸ Today we can use GPS measurements to confirm the direction and speed of their movement, which is in fact just inches per year. But has it always been this way, with the continents moving apart slowly? Actually, it hasn't, and we'll explain why this is the case, both biblically and scientifically.

The Bible records that the Flood commenced by the “fountains of the great deep” *breaking open*. The Hebrew term used for this is bâqa‘ (pronounced “baw-kah”) which means to “cleave, rend, or break and rip open; to make a breach.” This “cleaving and breaking/ripping open” couldn't describe what we see on the planet today any better.

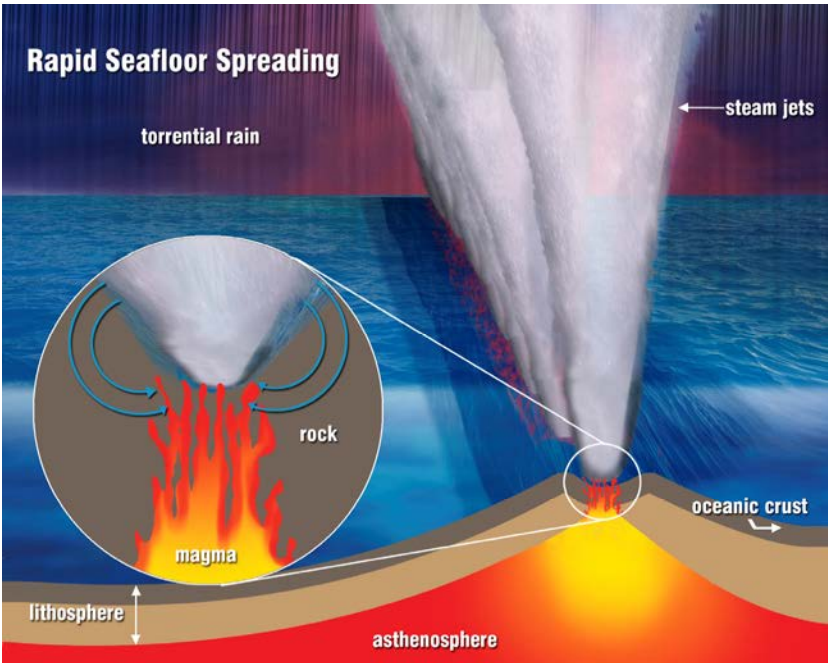


Figure 11. Fountains of the Great Deep Breaking Open (the Beginning of Noah's Flood).⁷⁹

In 1994 six PhD scientists published a research paper titled, "Catastrophic Plate Tectonics: A Global Flood Model of Earth History,"⁸⁰ that substantiated this biblical aspect of the Flood. Their research revealed that fast-moving, subducting oceanic plates were responsible for the continents breaking apart and spreading to their current locations, in contrast to the evolutionary ideas of slow continental drift and equally slow seafloor spreading. Ongoing research in this area has shown that the model helps explain volcanoes, mountain ranges, the shapes and positions of continents, and the generation of global tsunamis that explain some rock layers.

Genesis Apologetics worked with many of these leading Flood geologists to produce YouTube videos that visualize how CPT played such a large role in Noah's Flood.⁸¹ Readers interested in a more technical explanation behind the catastrophic nature of the Flood are encouraged to view Dr.

Steve Austin's presentation titled, "Continental Sprint: A Global Flood Model for Earth History."⁸²

Much of the fundamental research on the topic of CPT has been undertaken by Dr. John Baumgardner over the past 40 years. As a professional scientist, Dr. Baumgardner is known for developing TERRA, a finite element code designed to study flow of rock within the Earth's mantle. In 1997, *US News and World Report* described him as "the world's pre-eminent expert in the design of computer models for geophysical convection."⁸³ Baumgardner has applied TERRA to demonstrate that the Earth's mantle is indeed vulnerable to runaway instability and that this instability is capable of resurfacing the planet in the time span of just a few months. We'll review many of Baumgardner's findings below.

Brief Summary of Plate Tectonics Concepts

Scientists of both creation and evolutionary persuasions agree that new ocean crust forms at ocean rift zones where two tectonic plates are moving apart. The plates in the rift migrate apart, magma rises to fill the gap, is cooled by ocean water, and solidifies to make a strip of new ocean crust. The two plates are each like a conveyor belt that moves away from the rift zone along one edge and usually toward a subduction zone along the other edge. At the subduction zone, the moving plate plunges into the mantle beneath and thus disappears from the surface (see Figure 12).

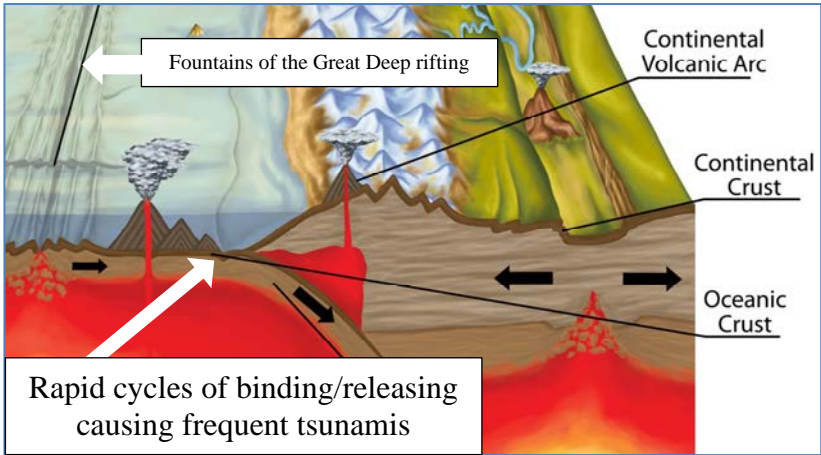


Figure 12. Subduction Overview.

The main difference between the creationist and secular understanding is that, in the creationist understanding, during the Flood, plate speeds were about five miles-per-hour instead of just a few inches per year, as they are measured to be today. The much higher speed is why the process during the Flood is referred to as *Catastrophic Plate Tectonics (CPT)*.⁸⁴

What evidence is there for plate tectonics?

The evidence supporting the concept of plate tectonics is overwhelming. Let's quickly tour some of the key evidences, starting first with the "big picture," then investigating some of the physical evidences in more detail.

Evidence 1: The continents fit together like puzzle pieces

One of the clearest evidences is that the continents fit together like puzzle pieces. While many school textbooks credit Alfred Wegener, a meteorologist, with the "discovery" that the continents "drifted" from an original super-continent (Pangea or similar configuration) to their current location, it was actually a creation scientist who brought this to light much earlier. His name was Antonio Snider-Pellegrini (1802–1885), a French

geographer and scientist, who theorized about the possibility of continental drift. In 1858, Snider-Pellegrini published his book, *La Création et ses mystères dévoilés* (“The Creation and its Mysteries Unveiled”) which included the image in Figure 13.

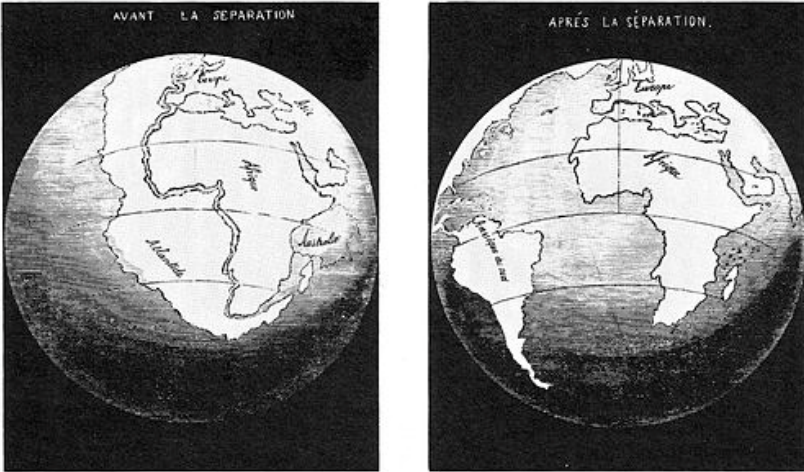


Figure 13. Snider-Pellegrini made these two maps in 1858, showing his interpretation of how the American and African continents once fit together before becoming separated.

Snider-Pellegrini based his theory on the Genesis Flood, the obvious shape and fitting of the continents, and the fact that plant fossils found in both Europe and the United States were identical.⁸⁵

Modern mapping technologies and the help of bathymetric maps that reveal the shapes and contours of the continental shelf and the ocean floor allow us to clearly see that the continents were once connected and later torn apart. Figure 16 shows what Earth looks like with all the ocean water removed. Without the oceans, the deep shelves on each side of the continents become visible and we can see how the continents fit together like puzzle pieces to shape an Earth that used to be mostly a single land mass.

Interestingly, this perfectly fits the Genesis account: “Then God said, ‘Let the waters under the heavens be gathered

together into one place, and let the dry land appear'; and it was so. And God called the dry land Earth, and the gathering together of the waters He called Seas. And God saw that it was good" (Genesis 1:9–10). This is especially obvious when looking at the matching jagged edges of lower South America and Africa (see Figure 14).

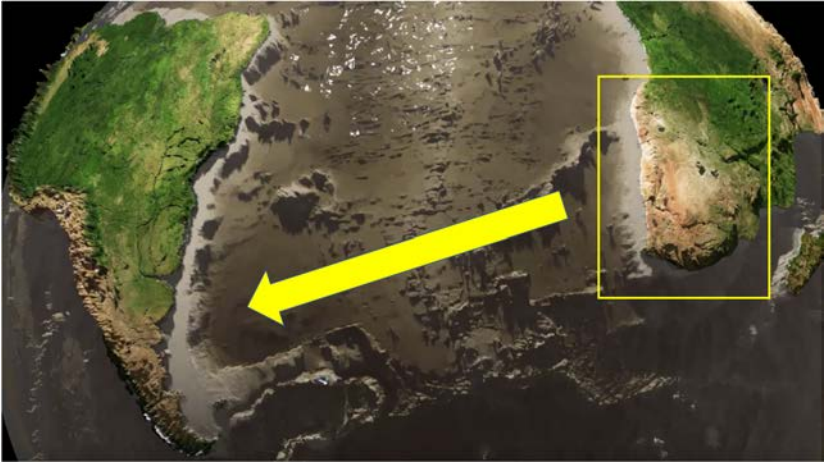


Figure 14. Lower South America Matching Africa.⁸⁶

We can also see how a notch of submerged land off the grand banks of Newfoundland fits nearly perfectly into a slot north of Spain (see Figure 15).

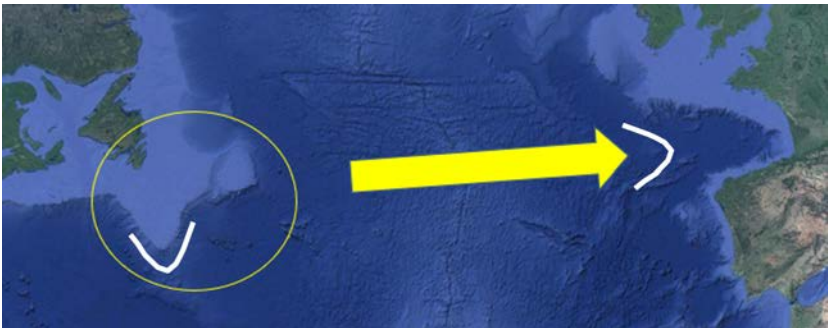


Figure 15. Submerged land off the Grand Banks of Newfoundland fitting into a Slot North of Spain (Google Earth).

From a Biblical standpoint, the continents fit together so well because of the catastrophic linear rifting that occurred when the fountains of the great deep were “cleaved” and pulled apart only a few thousand years ago.

Evidence 2: The Oceanic Ridge System

The oceanic ridge system covers more than 40,000 miles and circles the Earth 1.6 times over.

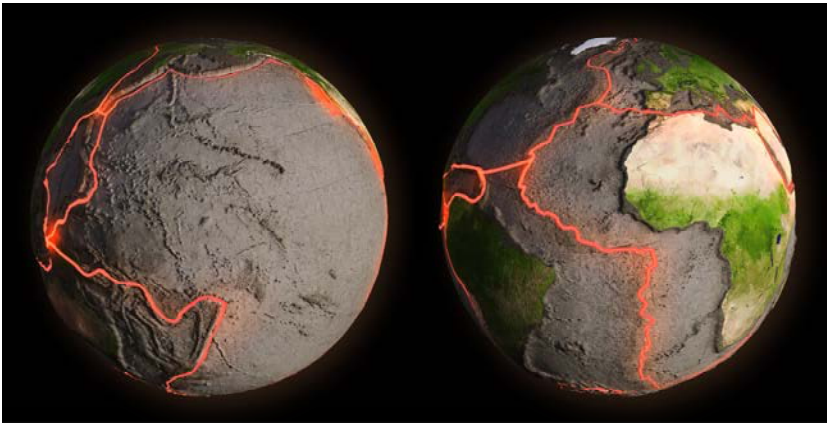


Figure 16. Oceanic Ridge System.

The Mid-Atlantic Ridge (MAR) represents one of the largest rifts left behind by the global seafloor spreading process. It looks like a giant baseball seam running around the face of the Earth.

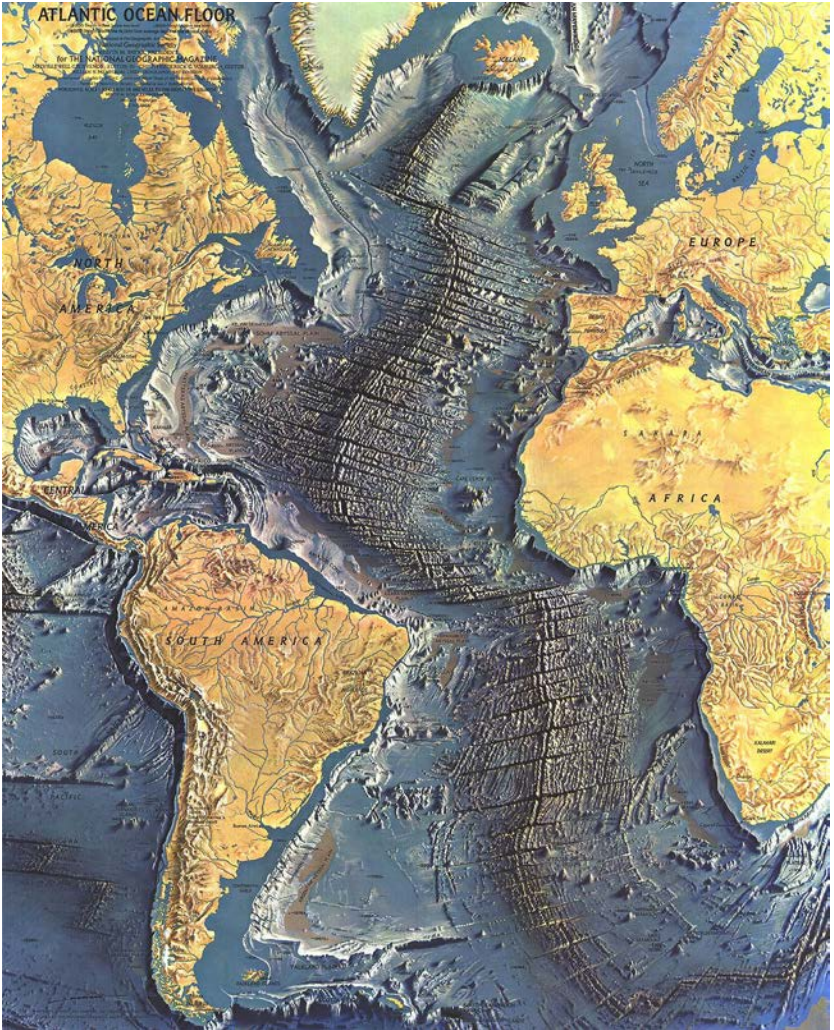


Figure 17. Mid-Atlantic Ridge (MAR).⁸⁷

The MAR is part of the longest mountain range in the world and includes perpendicular faults along its entire length, known as transform faults, showing the formation of new seafloor involved a pulling apart of the ocean basin. The sharpness of the faults and the abrupt edges indicate that little time has expired since their formation. The raised and sloped features on each side of the rift also testify to the hot and

buoyant rock that still lies beneath it. From a Biblical standpoint, the formation of the Atlantic basin occurred quickly during the Flood and then slowed down greatly to about an inch per year, as GPS measurements today indicate.

Evidence 3: Ring of Fire

The Ring of Fire is a 25,000-mile horseshoe-shaped string of oceanic trenches in the Pacific Ocean basin where about 90% of the world’s earthquakes and a large fraction of the world’s volcanoes occur.⁸⁸ It is also where most of the plate subduction is taking place today. From a Biblical perspective, this long belt of volcanoes and earthquakes marks the location where vast amounts of ocean plate was rapidly subducted into the Earth’s interior during the Flood. Today, by comparison, the speed of subduction is extremely slow, and the resulting earthquakes and tsunamis are dramatically less frequent.

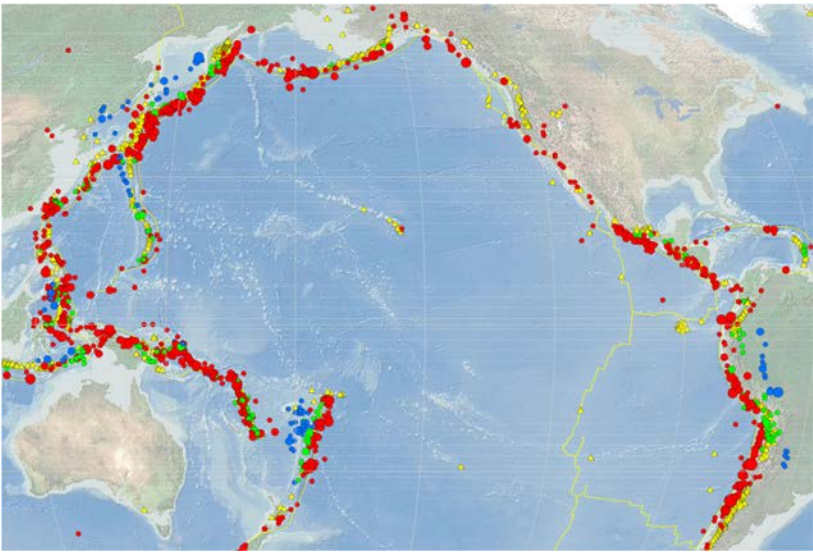


Figure 18. USGS 1900–2013 Earthquakes in the Ring of Fire.⁸⁹

How is CPT different from the secular understanding of plate tectonics?

CPT is basically the expression at the Earth's surface of a recent, massive, and rapid overturn of rock inside the region inside the Earth known as the mantle, which is the 1,800-mile thick layer of rock between the Earth's core and its crust. Regions of cooler rock in the upper part of the mantle have a natural tendency to sink downward toward the bottom, and regions of warmer rock at the bottom have a natural tendency to rise upward toward the surface. When conditions are right, this natural tendency for rising and sinking can "run away," such that both rising and sinking become faster and faster—up to a billion times faster. The force responsible for driving this behavior is simply gravity. From a Biblical perspective, the runaway episode responsible for CPT occurred during the Flood described in Genesis 6–8.

The possibility that runaway behavior might occur in the mantle was discovered decades ago in laboratory studies⁹⁰ that explored how mantle minerals deform at mantle temperature and stress conditions. These basic experiments revealed that mantle minerals weaken by factors of more than a billion for stress levels that can readily arise inside the Earth. Computer experiments⁹¹ later confirmed that episodes of runaway overturn in the mantle are inevitable under the right conditions because of this inherent weakening behavior demonstrated in these laboratory experiments.

What might be the consequences at the Earth's surface of a runaway overturn event in the mantle? One notable consequence is that the tectonic plates at the Earth's surface get caught up in the rapid flow of rock within the mantle beneath. In particular, the ocean plates diving into the mantle at the deep-ocean trenches during the overturn did so at a spectacularly accelerated pace compared to today's rates. Likewise, in zones known today as spreading ridges (such as the Mid-Atlantic Ridge) where tectonic plates are moving apart from one

another, the speed of separation during the overturn was dramatically higher.

Just how much faster would the plate motions during such an overturn event be compared with what is occurring today? This can be estimated based on the time frame provided in the Bible's account of the Flood and on the amount of plate motion associated with the part of the rock record that contains fossils of the plants and animals buried in the Flood. From these numbers one obtains a plate speed on the order of five miles-per-hour. A typical plate speed today, as measured by GPS, is on the order of a couple inches per year. The ratio of these two speeds is about one billion to one.

What are other noteworthy consequences of such rapid plate motions? One is that water on the ocean bottom in the zones where plates were moving apart so rapidly was in direct contact with the molten rock which was rising from below to fill the gap between the plates. This molten rock at about 1300° C converted the ocean water to steam at extremely high pressure. This steam organized to form in a linear chain of intense supersonic jets along the entire midocean ridge system. As these jets pierced the layer of ocean water above where they were formed, they entrained massive amounts of liquid seawater, which was lofted high above the Earth. This liquid water then fell back to the surface as rain. Hence, a direct consequence of rapid plate motions was persisting rain over much if not most of the Earth.

A second prominent consequence of rapid plate motion was a rising sea level that flooded the land surface with ocean water. The rising sea level resulted from a decrease in the volume of the ocean basins. Behind that decrease was the loss of original cold ocean plate as it plunged into the mantle at an ocean trench and its replacement with new and much warmer ocean plate produced by seafloor spreading at a mid-ocean ridge. The new plate was on average 500–1000° C warmer than the cold plate it replaced. Because warm rock of a given mass has more volume than cold rock of the same mass, the ocean floor above new ocean floor was 0.6–1.2 miles higher than was

the old ocean floor. As more and more new ocean floor was generated at mid-ocean ridges, while more and more of the original ocean floor was removed by recycling into the mantle, the global sea level relative to the land surface rose by thousands of feet. Hence, a notable result of rapid plate motion was a rising sea level and a dramatic flooding of the continents by ocean water.

A third major consequence of the rapid plate motion is the generation of a huge number of giant tsunamis. In today's world, at an ocean trench where an oceanic plate is steadily slipping into the mantle, the adjacent overriding plate generally is locked against it and is bent downward as the other plate slides into the mantle (see Figure 19). As this motion proceeds, the overriding plate is deformed more and more in a spring-like manner until a stress limit is exceeded. At this point the two plates unlock, significant slip between the plates occurs, and the overriding plate returns to its original shape. Such an unlocking and slip event usually produces an earthquake. If the slip event is large enough it also can launch a tsunami. During the Flood, when plate speeds were a billion times faster than today, it is almost certain that this same locking and unlocking phenomenon also prevailed. The higher plate speeds and the huge amount of seafloor recycled into the mantle would have generated vast numbers of huge tsunamis. Conservative estimates are in the range of 50,000–100,000 or more tsunamis, with wave heights in the range of hundreds of feet or higher.

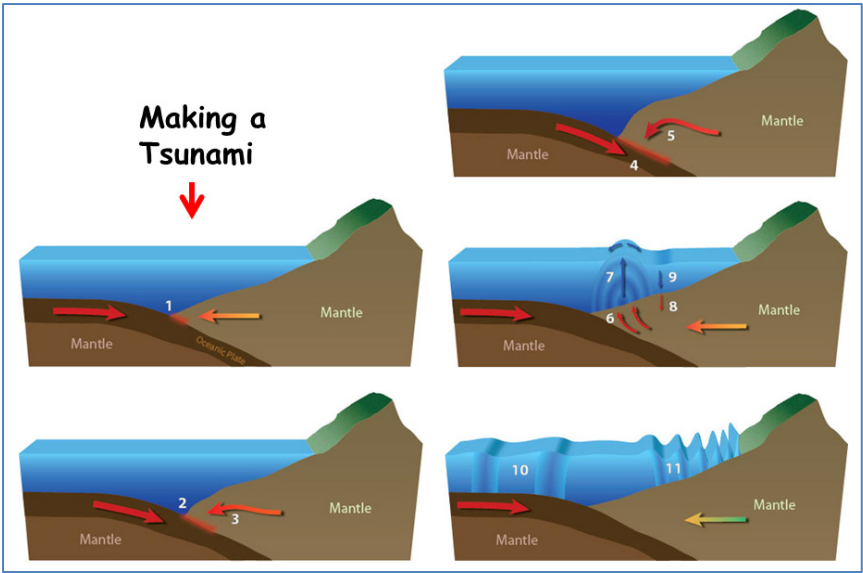


Figure 19. Making a Tsunami.⁹²

Numerical experiments undertaken by Dr. Baumgardner to model the erosion and sediment deposition aspects of this sort of tsunami activity show that it is readily capable of producing the observed continent sediment record. This work is described in a recent paper titled, “Understanding how the Flood sediment record was formed: The role of large tsunamis.”⁹³ Figure 20 shows a plot from this simulation that includes the plate motions.⁹⁴ Hence, a third major result of rapid plate motion is the formation of the observed layer-cake pattern of fossil-bearing sediments across the continents.

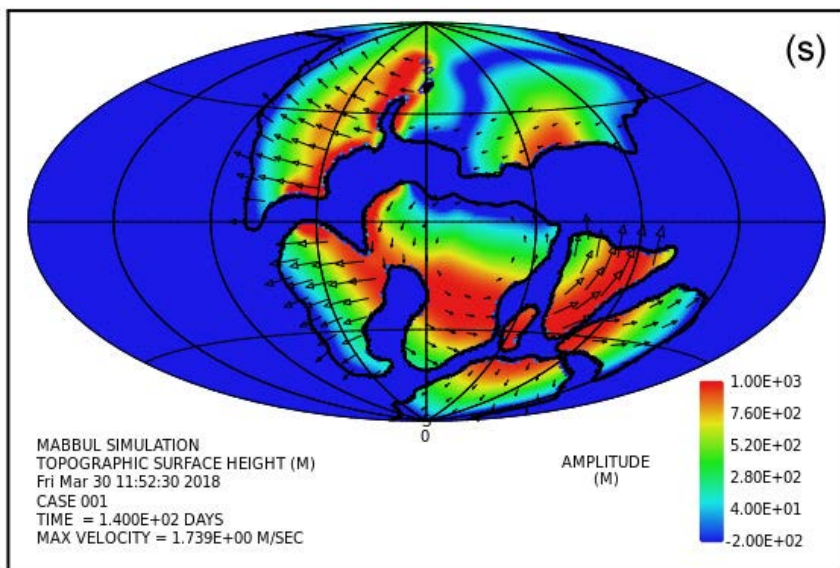


Figure 20. Plot from Dr. John Baumgardner's CPT Tsunami Simulation.⁹⁵

Dr. Baumgardner's simulation allows us in a limited way to rewind time to gain some insight into what happened during the year-long Genesis Flood. Below we'll review some of the major physical evidences that support CPT.

Physical evidences that support the reality of CPT

Evidence 1: Catastrophic Subduction

The oceanic plates that rapidly subducted under the continents during the Flood are still visible! Seismic images of the mantle reveal a ring of unexpectedly cold rock at the bottom of the mantle, beneath the subduction zones that surround the Pacific Ocean. We say *unexpectedly* cold rock because if a slab of crust subducts very slowly, it will develop thermal equilibrium with the surrounding mantle rocks as it sinks. The temperature will even out. However, evening out the temperature takes a lot of time. If the slab subducts slowly, at

the rate it moves today, there is plenty of time for heat to transfer and make the subducting slab match the temperature of the surrounding mantle. If the slab subducts rapidly, there is no time for the heat to transfer and the subducted slab stays cooler than the surrounding rocks for thousands of years. Thus, the temperature difference we observe strongly suggests rapid subduction, much faster than is occurring today.

This structure is obtained using a technique known as seismic tomography that folds together data from 10,000 or more seismograms at once (see Figure 21).

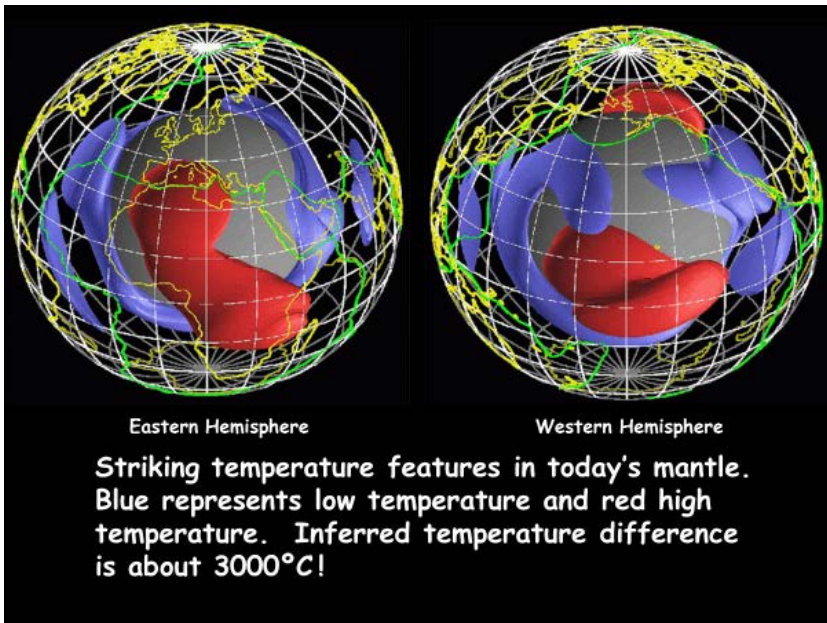


Figure 21. Cold Plates (Blue) that Subducted under the Continents During the Flood.⁹⁶

Evidence 2: The Fossil Record

The action of CPT caused the oceanic plates to subduct rapidly under the land masses and generate cycles of tsunamis that brought staggering quantities of sediment onto land that wiped out every living creature in their paths, burying them in

the mud layers we still see today. These types of tsunamis still occur, although much less frequently and on a smaller scale. The moving sea floor subducts, snags under the land masses, and then releases, creating mud-filled tsunamis that carry debris and sea life onto land, sorting them in layers.

Giant, high-frequency tsunamis that were occurring during the Flood explain why today we see dinosaur graveyards around the world, including 13 states in the middle of America, containing dead dinosaurs mixed with marine life (see Figure 22). What type of flood could do this? Just how much water would it take to bury millions of land creatures under hundreds of feet of mud and sand in the Morrison Formation (a 13-state, 700,000 square mile area)?

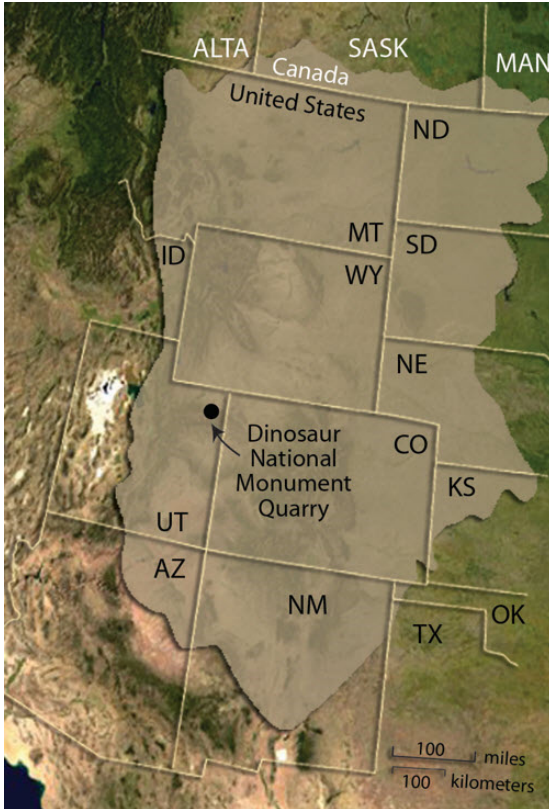


Figure 22. Morrison Formation.⁹⁷

Just how did so many land creatures get buried together with marine life, with 97% of the dinosaurs found disarticulated,⁹⁸ and many of the remaining 3% that are found intact discovered in mud and sand layers with their necks arched back, suffocating as they died?⁹⁹

A global inundation that covered most of North America is no secret to secular geologists, but they call it something different: the “widespread Late Cretaceous transgression”¹⁰⁰ (essentially technical jargon for “worldwide flood”). Studies have revealed that “a sea level rise of 310 meters is required to flood the Cretaceous layers based on their current elevation.” The challenge for secular geologists, however, is that the maximum thickness of the fossil layers produced by a 310-meter sea level rise is only about 700 meters, but in North America, nearly 50 percent of the Cretaceous layers contain strata *thicker* than 700 meters.

Sediment transport via highly turbulent tsunami-driven flow described in Baumgardner’s published work logically seems to be required to account for these thick layers. These layers also suggest that the continents had to *down warp* locally during this global inundation, as Baumgardner’s modeling likewise suggests. This is what CPT predicts and what the Flood would have done. There’s just no way that rising sea levels alone can explain the fossil record in North America—mechanisms much more powerful and catastrophic *had to be involved*.

Evidence 3: Fossil Correlation¹⁰¹

By comparing fossils of small organisms found on the ocean floor with fossils of the same organisms on different continents, it has been possible to determine when the ocean crust formed in terms of the fossil sequence found in the continental sediments. What has been discovered, both from a creationist as well as from a secular understanding, is that much of the continental fossil record was already in place before any

of the present-day ocean crust had come into existence. For example, all the trilobite fossils had already been deposited, plus all the older coal deposits (Pennsylvanian System coals) had already been formed before any of the present-day ocean crust had formed.

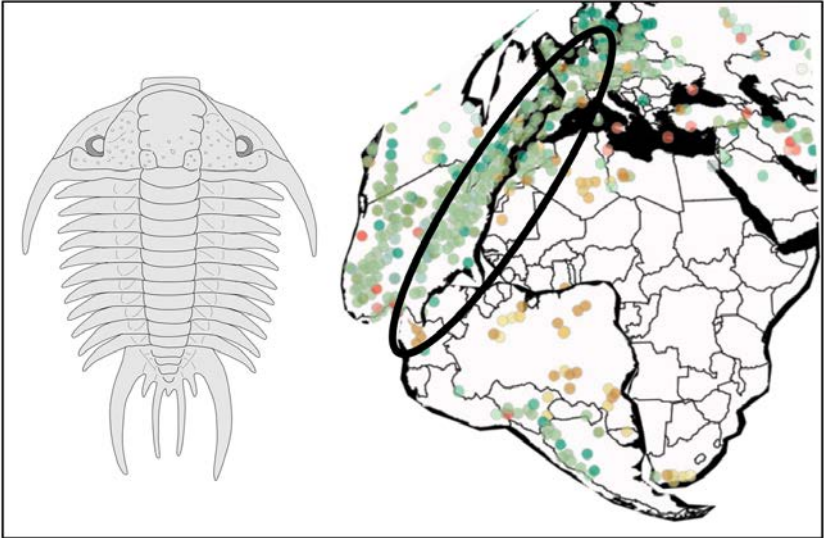


Figure 23. Reassembling the continents shows a trilobite habitat torn apart by the Flood.¹⁰²

The fossil record (e.g., certain trilobite species) that now straddles both sides of the MAR testify to the rapid nature of this catastrophe, with millions of the same kinds of animals that were once living together now found buried in mud and lime layers on either side of the rift.

In the creationist understanding, the presence of fossils is a trustworthy indicator of the action of the Flood, meaning that a large part of the Flood cataclysm had already unfolded and had generated fossil-bearing sediments on the continental surface *before* any of the present-day ocean floor had appeared. It further implies that all of today's ocean floor formed *since the onset of the Flood*, during roughly the latter half of the cataclysm. It also means that all the pre-Flood ocean floor, plus

any ocean floor formed during the earlier portion of the Flood, must have been recycled into the Earth's interior during the cataclysm. These considerations indicate in a compelling way that rapid plate tectonics must have been a major aspect of the year-long Flood catastrophe.

Evidence 4: Buckled/Folded Sedimentary Layers

The Genesis Flood laid down tens of millions of cubic miles of sediment like sand and mud all over the globe. It soon hardened into rock. These layers contain most of the fossil record. Some of these massive layers are bent and even folded, proving they were laid down rapidly and then bent before hardening into rock. Otherwise they would have crumbled instead of bending plastically. These folded and bent geological features are found all over the world and most occurred during the latter stages of the Flood when 80% of the world's mountains rapidly formed.



Figure 24. Example of Massive Geologic Folding.¹⁰³

Evidence 5: River Fans

If the evolutionary view about the continents were true (that they moved apart slowly over millions of years), the large rivers on the continents that empty into the Atlantic Ocean would have left a connected trail of mud stretching from one side of the Atlantic to the other. But what the evidence actually shows is that most of the seafloor spreading that formed the Atlantic was *over* before continental runoff and major transport of sediment into the Atlantic basin *began*. Major rivers like the Congo, Mississippi, and Amazon run off the continents and have mud fans with only thousands of years' worth of mud deposits—not millions.



Figure 25. Amazon River Fan (Google Earth).

There are flat sand bottoms on each side of the continents showing they were split apart rapidly—they don't

have millions of years' worth of runoff with considerable mud extending into the ocean. The continental shelves exhibit little erosion and still match nearly perfectly when put back together. Millions of years of erosion would have destroyed much of the sharp continental shelves. These rivers began shaping and eroding only thousands of years ago, not millions.

Evidence 6: Sloss Megasequences

Dr. Tim Clarey has conducted extensive research on the Genesis Flood using over 2,000 stratigraphic columns (bore holes) from across North and South America, Africa, and Europe.¹⁰⁴ These data confirm the existence of six megasequences (called “Sloss-type megasequences”), large-scale sequences of sedimentary deposits that reveal six different stages of global depositions that occurred during the Flood.

The three earliest megasequences (Sauk, Tiptecanoe, and Kaskaskia) contained mostly marine fossils, indicating that only shallow marine areas were swamped and buried by CPT-caused tsunamis. The 4th megasequence (Absaroka) shows a dramatic rise in ocean level and overall global coverage and volume. This sequence also includes the first major plant (coal) and terrestrial animal fossils. The 5th megasequence (Zuni) was mostly responsible for the demise of the dinosaurs and appears to be the highest water point of the Flood (its zenith) because it shows the highest levels of sediment coverage and volume compared to earlier megasequences. The final megasequence (Tejas) contains fossils from the highest upland areas of the pre-Flood world. Together, these megasequences explain why over 75% of Earth is covered by an average of about one mile of sedimentary deposits.

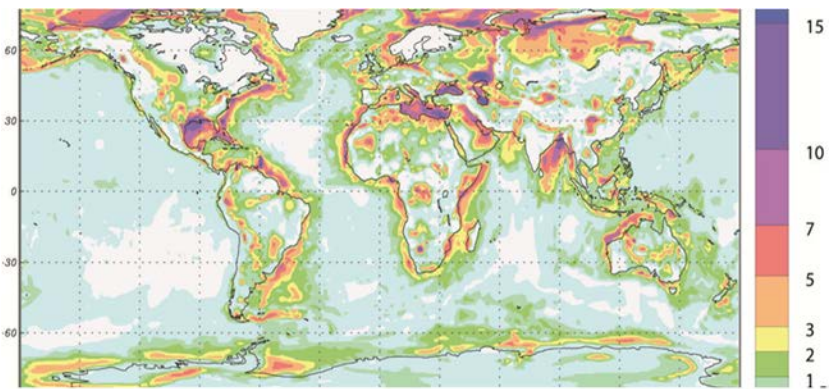


Figure 26. World Sediment Map (showing 75% of Earth's surface is covered by an average of about one mile of sedimentary deposits).

Evidence 7: Massive Coal Deposits

One of the highest and most severe stages of the Flood occurred during the 4th Sloss megasequence, the Absaroka. Land creatures and plants start showing up in the fossil record laid down by this megasequence. This is also the time when the world's ocean floor began to be created anew. In other words, the oldest ocean crust today only goes back to the time of the deposition of the Absaroka megasequence.

Notice the top bars in the first seven labeled rows in Figure 27. This shows the global animal fossil occurrences from the Paleobiology Database.¹⁰⁵ The lower, blue bars in each row represent aquatic animals and the top, red bars represent land animals. The megasequences are shown on the left. Note that few land animals appear until the end of the Kaskaskia, then land animals begin increasingly showing up in the fossil record as the Flood progressed.

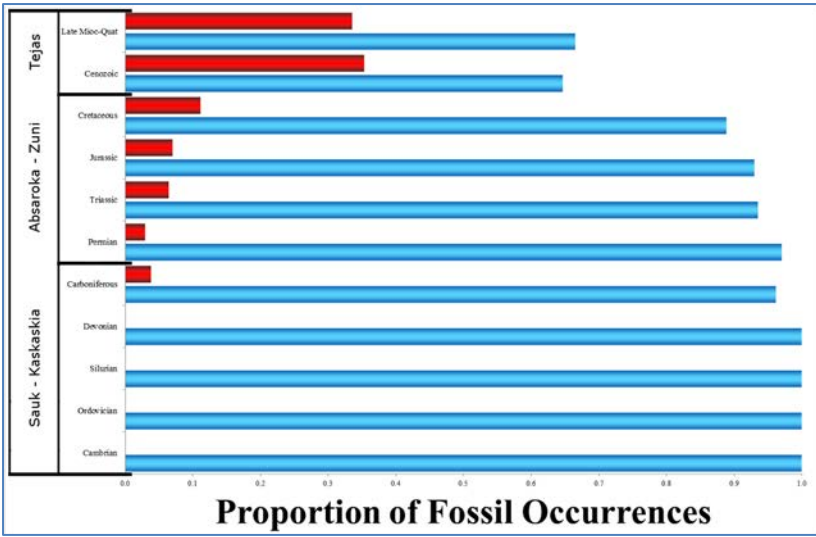


Figure 27. Sloss Megasequences and Fossil Deposits.¹⁰⁶

Entire ecosystems were buried during this megasequence in enormous deposits that later turned into coal, such as the extensive Appalachian coal beds. Even more coal was formed in the later Zuni and Tejas Megasequences as the waters of the Flood rose yet higher. The U.S. has over seven trillion tons of coal reserves. Where did it all come from? While we know that coal is formed by dead plant material being sandwiched between sediment layers, we only have enough vegetation on the Earth's surface today to produce just a fraction of the existing coal reserves.¹⁰⁷ This shows that the pre-Flood world was mostly covered by lush vegetation. The rising Flood waters and tsunamis that were necessary to sweep over the land and bury vast amounts of vegetation that turned into coal are best explained by a catastrophe of worldwide proportions.

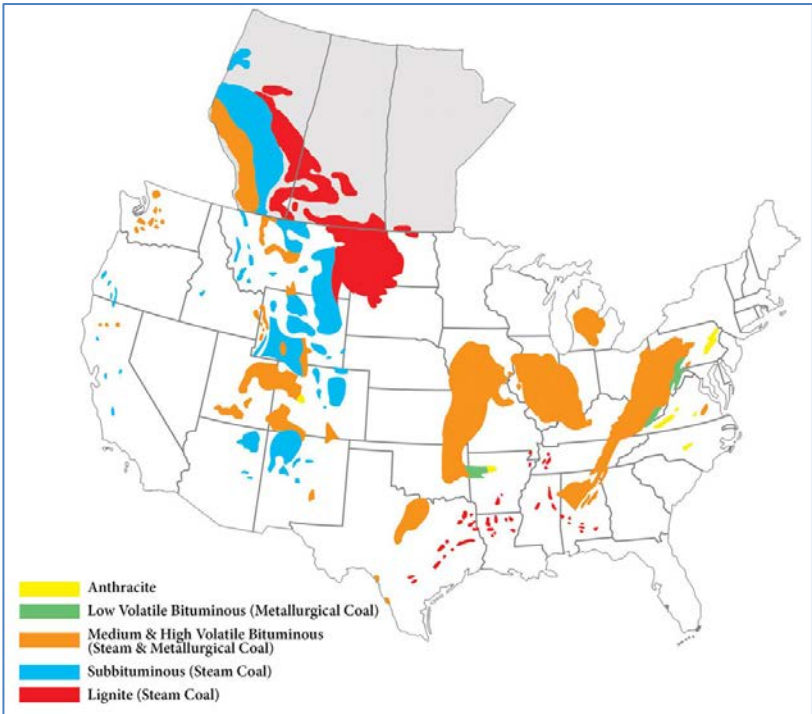


Figure 28. United States Coal Beds.¹⁰⁸

In the later run-off stages of the Flood (called the Tejas sequence), plants swept off the pre-Flood lands formed massive coal beds such as in the Powder River Basin of Wyoming and Montana. The Powder River Basin layers are the largest coal deposits in North America, currently supplying over 40% of the coal in the U.S. Some of these stacked coal beds are up to 200 feet thick and cover areas that are 60 miles long by 60 miles wide. The sheer volume of plant material required to form such a massive layer of coal testifies to catastrophic circumstances.

Dinosaur Fossils: Look No Further If You Want Evidence for the Worldwide Flood!

Are the fossils really stacked in a way that proves life evolved on Earth over millions of unseen years? Or, does the fossil record provide evidence that the world was covered by a massive Flood in Noah's time just thousands of years ago? Actually, the fossil record does not show increasingly complex life emerging over the millennia. What it shows is a record of death in the order that the creatures were buried during the worldwide flood.

Think about it for a minute—Genesis 7 verse 11 says that the fountains of the great deep were broken up and the windows of heaven were opened, creating floods and tidal waves that were unimaginable. The Bible says the flood waters increased upon the Earth for 150 days until all the high hills under heaven were covered with over 20 feet of water. This process successively buried all creatures outside the Ark based on where they lived as the Flood waters prevailed, how smart they were, their means and speed of mobility, and their body density. This is precisely why the fossil record generally shows the shallow-water marine creatures buried in the lower layers. Then, as the ocean waters rose higher and higher the suffocated fish were buried, followed by amphibians, reptiles, mammals, and then birds.

President of Answers in Genesis, Ken Ham, has become well-known for making this statement: “If there really was a Global Flood, what would the evidence be? Billions of dead things, buried in rock layers, laid down by water all over the Earth.” This is exactly what we see.

For example, the Paleobiology Database is a free, searchable database that is designed to “provide global, collection-based occurrence and taxonomic data for organisms of all geological ages.”¹⁰⁹ This database includes 183,739 fossil *collections* totaling 1,323,009 *occurrences* (with each “occurrence” ranging from a few fossils to numerous). From a

Biblical Creation standpoint, the Genesis Flood deposited the vast majority of these fossils, and the chapters that follow explain the mechanics behind how it happened. Each of the circle dots in Figure 29 shows the extent of the known fossil record.

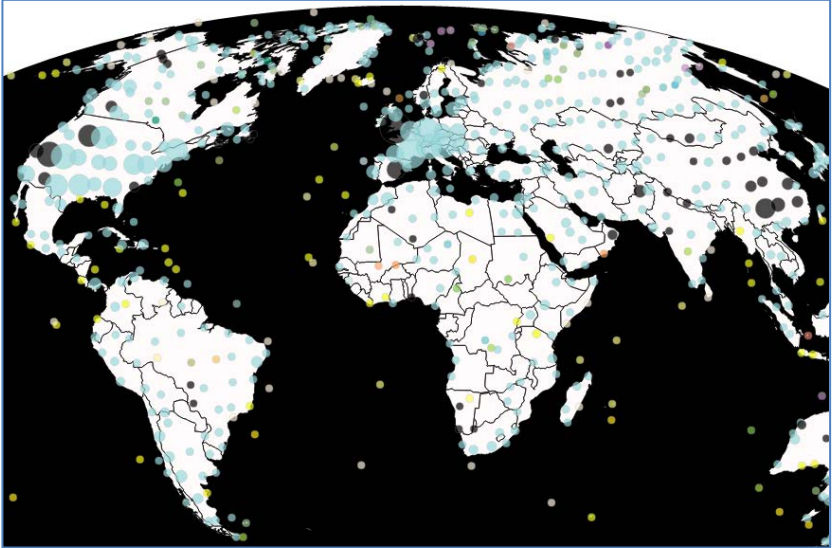


Figure 29. Paleobiology Database.¹¹⁰

If the untestable assumptions that hold up the ideas of radiometric dating are not true (and we believe they are not¹¹¹), then Figure 29 displays a massive, watery graveyard, most of which was filled during the year-long Genesis Flood.

Even Charles Darwin said, “... as by evolution theory, innumerable transitional forms must have existed, why do we not find them embedded in countless numbers in the crust of the Earth?” and “Why is not every geological formation and every stratum full of such intermediate links? Geology assuredly does not reveal any such finely graduated organic chain; and this is the most obvious and serious objection which can be urged against the theory?” Darwin expected that these challenges would be resolved after more research was conducted. But

today, 150 years and millions of fossils later, the proof **still** doesn't exist.

When the famous Dr. Colin Patterson of the British Museum of Natural History was asked why evolutionary transitions were not included in his book titled, "Evolution" Patterson said: "I fully agree with your comments on the lack of direct illustration of evolutionary transitions in my book. If I knew of any, fossil or living, I would certainly have included them... You say that I should at least show a photo of the fossil from which each type organism was derived.' I will lay it on the line—there is not one such fossil for which one could make a watertight argument." Wow—after working with thousands of fossils for over 16 years in one of the largest natural history museums in the world, he makes a statement like this!

With this "big picture" overview provided, next we'll look into the dinosaur fossil record specifically, as well as a few of the leading supposed "transitional" fossils that are often displayed in museums to promote evolution.

Overview of the Dinosaur Fossil Record

The number of dinosaur "mass graves" around the world is astounding. These fossil graveyards contain a mixture of many different kinds of fossils that were *transported by large volumes of water* (see Figure 30). Modern, small-scale debris flows offer examples of what likely entrained, in some cases, millions of animals. Like a giant water wing, a debris flow carries its load largely undisturbed inside, as it rides upon a watery cushion either underwater or over land. As soon as the flow slows to a certain speed, turbulence overwhelms the load and it drops in place.



Figure 30. Dinosaur Fossil Graveyard Example.

Bone fossils typically occur as broken fragments. They were violently carried along with enormous amounts of mud and shifting sediments. By studying some of these fossil graveyards, we can gather clues that will demonstrate that the Flood was in fact catastrophic and worldwide, as stated in Genesis 7:20–23:

The waters rose and covered the mountains to a depth of more than fifteen cubits [at least 22 feet]. *Every living thing* that moved on land perished—birds, livestock, wild animals, *all the creatures* that swarm over the Earth, and *all mankind*. *Everything* on dry land that had the breath of life in its nostrils died. *Every living thing* on the face of the earth was wiped out; people and animals and the creatures that move along the ground and the birds were wiped from the Earth. *Only Noah was left*, and those with him in the ark. (emphasis added)

If this passage in Genesis is true, we would expect to find *billions of dead things buried in rock layers laid down by water all over the Earth.*¹¹² This is exactly what we find *all over the world*, and dinosaurs fossils are an incredibly good example of this.

A profound example of a dinosaur graveyard is Dinosaur National Monument in Utah, which is only a part of the 700,000-square mile Morrison Formation, a geologic unit that has spawned excavations of more than a hundred dinosaur quarries.¹¹³

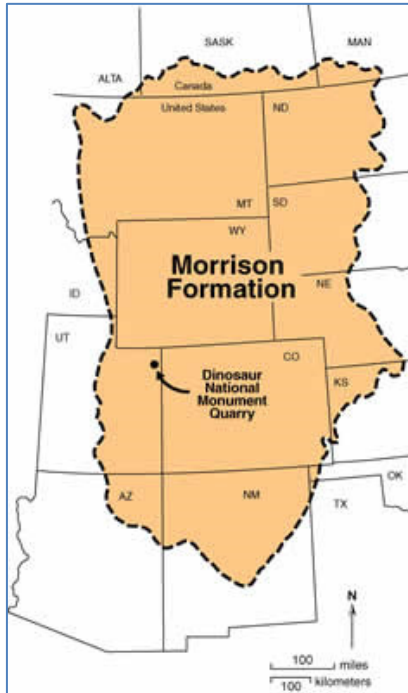


Figure 31. Aerial extent of the Morrison Formation.¹¹⁴

What type of catastrophe could possibly bury hundreds of massive bone beds in this 700,000-square mile area? This region could quite possibly represent an enormous, ancient debris flow that only a worldwide watery catastrophe could explain.

When it comes to looking at the burial conditions of dinosaurs that were wiped out in the Flood, only about 3,000 of the dinosaur fossils are found in “articulated”¹¹⁵ condition (with most of the bones still in place). Because fossils representing over 100,000 dinosaurs have been found, this represents only about 3% of the dinosaur fossil record.¹¹⁶ So these animals did not die peacefully. Whatever wiped them out was *sudden* and *violent*.

Another characteristic about dinosaur bonebeds is the evidence that they were quickly buried in **mud**. The very fact that we have so many preserved dinosaur fossils shows that they were buried quickly because fossilization requires rapid burial in **muddy ground**. The fossil record is full of dinosaurs that suddenly died in watery graves around the world, with many of them found in the famous “death pose” with their necks arched back, as if drowning in mud and carried along by a mudflow.¹¹⁷

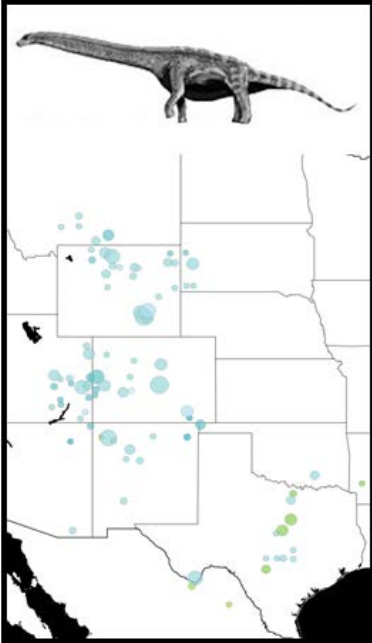


Figure 32. Dinosaurs in the Common “Death Pose,” Indicating Rapid Burial and Suffocation (Royal Tyrrell Museum, Author).

Yet another clue that the dinosaurs were wiped out catastrophically is the fact that so many are found buried simultaneously, fleeing in groups. For example, Figure 33 plots both the sauropod and triceratops dinosaur fossils that have been found in the Midwestern United States. Isn’t it interesting that these totally different dinosaur types were simultaneously

wiped out and buried in the *same areas*? Something stopped these two very large dinosaur types dead in their tracks and buried them in mud, preserving their fossils for us to find today.

Sauropod Fossils in the Midwest



Triceratops Fossils in the Midwest

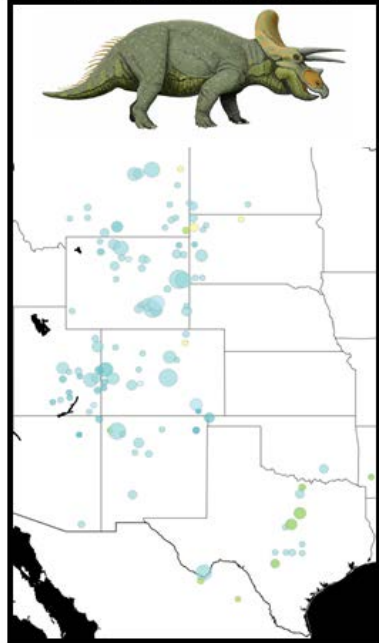


Figure 33. Sauropod and *Triceratops* Graveyards.¹¹⁸

Sauropods and *Triceratops* are some of the largest dinosaurs to ever live. What type of event would it take to bury these massive creatures in mud so quickly that they would be disarticulated and preserved for us to find today—locked in mud that hardened into rock before getting scavenged? Slow, gradually rising creeks or rivers? A sudden worldwide Flood fits the evidence much better.

Let's drill down and take a look at one of the largest mass dinosaur graves in the world found at Dinosaur Provincial Park in Canada. In just this one area, over 32,000 fossil

specimens have been found, representing 35 species, 34 genera, and 12 families of dinosaurs. Astonishingly, dinosaur fossils intermingle with fish, turtles, marsupials and other mammals, and amphibians. Also, only 300 complete animals have been found! The large majority were scrambled, pulverized, and blended together, as if the world became an enormous washing machine.

There are 14 mega bone beds at this location that collectively contain thousands of buried *Centrosaurus* found in the same stratigraphic column (a term used in geology to describe the vertical sequence of rocks in a particular area). The authors who completed the most extensive study of the area described the sediment in which these dinosaurs are buried as “mudstone rich in organic matter deposited on the tract of land separating two ancient rivers.”¹¹⁹ They also concluded that each of the 14 bone beds was actually part of a single, massive “mega-bone bed” that occupied 2.3 square kilometers—almost a square mile! Stop and think about this for a minute. How did thousands of dinosaurs—of the same species—get herded up and simultaneously buried in mud?

These authors even concluded that the massive bone beds were formed when a herd of *Centrosaurus* *drowned during a flood*. These bone beds are also found with aquatic vertebrates such as fish, turtles, and crocodiles, showing that water was definitely involved in their transport and burial. In addition, almost no teeth marks indicated little scavenging after these animals died, probably because most of them died at the same time.¹²⁰

While visiting this location, one outdoor display caught my daughter’s eye. It was a large hadrosaur, a “duck-bill” dinosaur, that they left in the ground, exactly as it was found, covered with mud and twisted around like it went through a blender before it was buried. A young boy pushed a button to play the audio explanation provided by the museum that described the evolutionary idea about how the animal died. They explained that a large tropical storm caused the rivers to

rise and the dinosaurs to drown—one after the other—as each blindly followed the other to their death (thousands of them).¹²¹

This is when my daughter had her epiphany: “You’ve got to be kidding me!” she exclaimed. “Look at all these dead dinosaurs—they’re everywhere! And they’re buried in countless tons of sediment—how’s a local rainstorm going to do that? Noah’s Flood is a much better explanation!” She’s onto something. If rainstorms explain this, then why don’t they deposit and fossilize even smaller creatures today? This 2.3 square kilometer dinosaur graveyard was massive—how much mudflow did the Flood have to bring onto land to bury over 10,000 *Centrosaurus*?¹²²

Other dinosaur mass gravesites exist around the world. An online article on *Discovery.com* describes a dinosaur graveyard in China as the largest in the world, writing, “Researchers say they can’t understand why so many animals gathered in what is today the city of Zhucheng to die.” Thousands of dinosaur bones stack on top of each other in “incredible density,” then they “suddenly vanished from the face of the Earth.”¹²³ Most of the bones are found within a single 980-foot-long ravine in the Chinese countryside, about 415 miles southeast of Beijing. Clearly, processes were going on in the past that were so violent they are hardly imaginable.

A dinosaur mass grave in Montana unveils yet more evidence for rapid burial during Noah’s Flood. In his article titled, “The Extinction of the Dinosaurs,” Creation researcher and meteorologist Michael Oard describes some of the numerous dinosaur graveyards that are found all over the world.¹²⁴ He believes this is solid evidence of Noah’s worldwide Flood. Oard reported that one of the largest bone beds in the world is located in north-central Montana:

Based on outcrops, an extrapolated estimate was made for 10,000 duckbill dinosaurs entombed in a thin layer measuring 2 km east-west and 0.5 km north-south. The bones are disarticulated and disassociated, and are orientated east-west.

However, a few bones were standing upright, indicating some type of debris flow. Moreover, there are no young juveniles or babies in this bone-bed, and the bones are all from one species of dinosaur.

Oard concluded that a cataclysmic event is the best explanation for the arrangement of the bones. Two leading secular scientists, Horner and Gorman, also described the bone bed: “How could any mud slide, no matter how catastrophic, have the force to take a two- or three-ton animal that had just died and smash it around so much that its femur—still embedded in the flesh of its thigh—split lengthwise?”¹²⁵

Figure 34 shows the text from books or articles about the particular fossil graveyard shown. Isn't it incredible that everyone admits that some type of watery catastrophe was responsible for piling up the dinosaurs into these mass graves?



Figure 34. Dinosaur Graveyards in Midwestern U.S. with “Flood Catastrophe” Explanations from Secular Sources.¹²⁶

Dinosaur Soft Tissue

Some would argue that the case for Biblical Creation would grow stronger if a living dinosaur was found in an unexplored swamp in the Congo. In actuality, however, what scientists have found over the last 20 years regarding soft tissue is even more convincing than discovering a living dinosaur.

You see, if someone found a living dinosaur somewhere, it would be easy for evolutionists to explain away—holding that evolution was on “idle” for eons. They’ve already done this many times when so-called “living fossils” are found, such as the coelacanth that someone hauled up in a fishing net off Madagascar in 1938. Before they found it alive, coelacanths were considered a key “missing link” between fish and amphibians, dating back to the time of the dinosaurs and beyond.¹²⁷

So the reason that the discovery of dinosaur biomolecules, cells, and tissues is *even better* than finding a living dinosaur is that the laws of chemistry hold evolutionists accountable for claiming either that thermodynamics—the process by which tissues break down—was idle for eons or, even more far out, that the bio-organic materials are *not even there*. Knowing these bio-organic materials were present when they were living, and still having them now, provides undeniable evidence for Noah’s Flood staring the world in the face.

This is why the recent discovery of 16 different types of short-lived dinosaur biomaterials that remain in dinosaur bones and other body parts like skin and horns is so important. Decay experiments have placed outer limits on how long they should last before completely decaying. For each of these materials, their “expiration date” is well before 65 million years, which is when dinosaurs supposedly went extinct. So, rather than being 65 million years old, these materials are just thousands of years old. The science of protein decay fits the Bible’s timeline of dinosaurs recently buried in Noah’s Flood.

Secular scientists have published each of these dinosaur-era fresh biomaterials in peer-reviewed, evolution-based science journals. One of most frequently used “rescuing devices” that is given by evolutionists to try to explain some of these findings is “bacterial contamination.” However, microbes do not produce *any* of the biomaterials covered below, ruling out recent contamination.

Many dinosaur bones are even found **un-fossilized** in places like Madagascar, Alaska, and Montana (see the section below titled, “Fresh Dinosaur Biomaterial #7: Unmineralized Bone”). Even the founder of the largest dinosaur museum in the world admitted that “...usually most of the original bone is still present in a dinosaur fossil.”¹²⁸ Sadly, most students who attend public schools today develop the opinion that dinosaur bones are just rock impressions of bones. Nothing could be further from the truth!

Fresh Dinosaur Biomaterial #1: Blood Vessels

Blood vessels transport blood throughout the body. They include the tiny capillaries, through which water and chemicals pass between blood and the tissue. Bones include capillaries and larger vessels. Small, pancake-shaped cells loaded with long-lasting collagen protein comprise blood vessels.

The blood vessels shown in Figure 35 were discovered when Dr. Mary Schweitzer’s team was attempting to move a gigantic *Tyrannosaurus rex* fossil by helicopter that turned out to be too heavy. They were forced to break apart the leg bone. When looking at the inside of the leg bone at the lab, they discovered that the inside of the bone was partially hollow (not mineralized), revealing the soft tissue shown in Figure 35 that was extracted after treatments to remove the minerals.¹²⁹

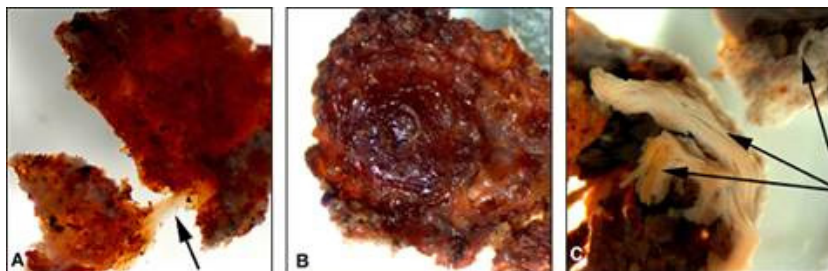


Figure 35. Tissue Fragments from a *T. rex* Femur.¹³⁰

The tissues that are shown on the left of Figure 35 show that it is flexible and resilient. When stretched, it returned to its original shape. The middle photo shows the bone after it was air dried. The photo at right shows regions of bone showing fibrous tissue, not normally seen in fossil bone.

Since this publication in 2005, blood vessels from several other dinosaurs and other extinct reptiles have been described and published in numerous leading scientific journals, including the *Annals of Anatomy, Science* (the leading journal of the American Association for the Advancement of Science), *Public Library of Sciences ONE*, and the *Proceedings from the Royal Society B*, which focuses on the biological sciences.¹³¹

Fresh Dinosaur Biomaterial #2: Red Blood Cells

Red blood cells carry oxygen and collect carbon dioxide using hemoglobin protein—also found in dinosaur and other fossils. Dr. Mary Schweitzer was one of the first to discover and publish the discovery of red blood cells, which she shares in her own words: “The lab filled with murmurs of amazement, for I had focused on something inside the vessels that none of us had ever noticed before: tiny round objects, translucent red with a dark center. Then a colleague took one look at them and shouted, ‘You’ve got red blood cells. You’ve got red blood cells!’”¹³²

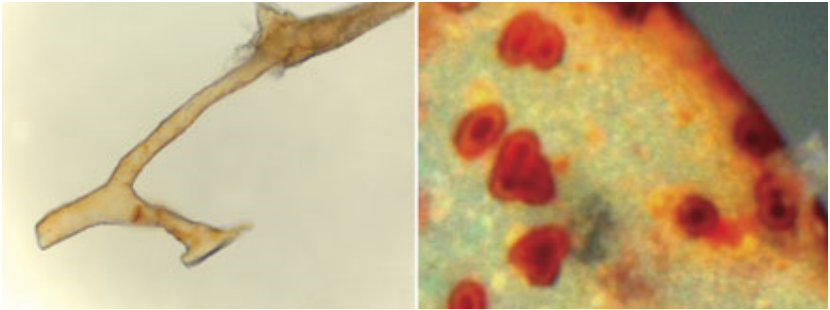


Figure 36. Blood Vessels and Red Blood Cells from a *T. rex* Bone.¹³³

These two photos in Figure 36 are from a 2005 discovery from Dr. Schweitzer that clearly show blood vessels from a *T. rex* bone (left) and red blood cells (right). How could these cells last for 65 million years? At least five peer-reviewed scientific journals have published accounts of red blood cells in dinosaur and other fossil bones.¹³⁴

Regarding this discovery, Dr. Schweitzer remarked, “If you take a blood sample, and you stick it on a shelf, you have nothing recognizable in about a week. So why would there be anything left in dinosaurs?”¹³⁵ That’s certainly a good question, and one that has an easier answer if dinosaur fossils are only thousands of years old!

Fresh Dinosaur Biomaterial #3: Hemoglobin

Hemoglobin protein contains iron and transports oxygen in red blood cells of most vertebrates. Some invertebrates, including certain insects and some worms, also use hemoglobin. In vertebrates, this amazing protein picks up oxygen from lungs or gills and carries it to the rest of the body’s cells. There, oxygen fuels aerobic respiration by which cells produce energy.

Scientific studies have reported “striking evidence for the presence of hemoglobin derived peptides in the [*T. rex*] bone extract”¹³⁶ and several other dinosaur “era” bones.¹³⁷

Fresh Dinosaur Biomaterial #4: Bone Cells (Osteocytes)

Secular scientists have described dinosaur proteins like hemoglobin, even though no experimental evidence supports the possibility that they can last for even a million years. But dinosaur bones hold more than just individual proteins. They sometimes retain whole cells and tissue remnants. An osteocyte is a bone cell that can live as long as the organism itself. Osteocytes constantly rebuild bones and regulate bone mass. Figure 37 shows highly magnified blood vessels, blood products, and osteocytes that were found on the inside of a brow horn of a *Triceratops*.

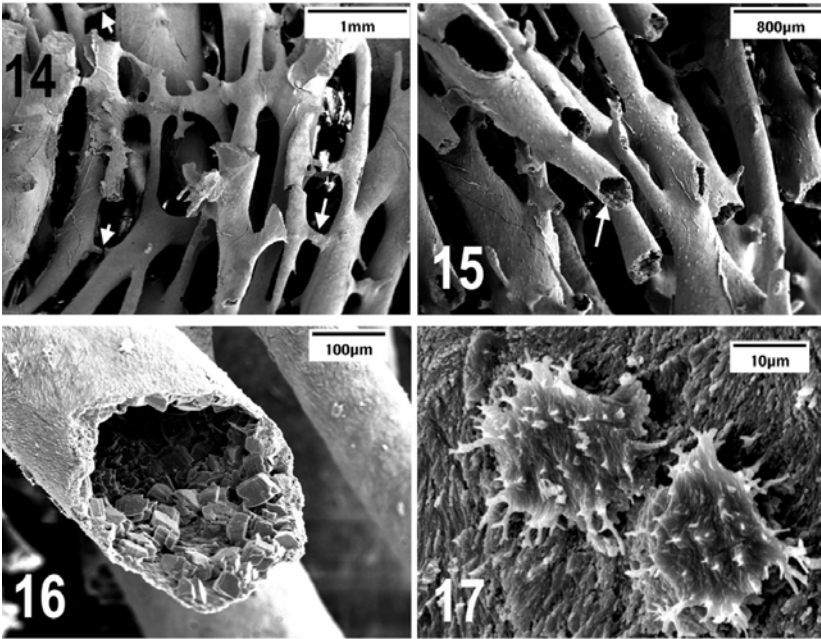


Figure 37. Soft Bone Material from a Brow Horn of a *Triceratops horridus* from Montana.¹³⁸

Figure 37 shows blood vessels linked together (white arrows in frame 14). Frame 15 shows possible blood products lining inner wall of hardened vessel (white arrow). Frame 16 is

enlarged from frame 15 and shows crystallized nature of possible blood products lining inner wall of hardened vessel. Frame 17 shows two large oblate osteocytes lying on fibrillar bone matrix.

At least four scientific studies have established osteocytes in dinosaur bones. One study even found nucleic acid signatures consistent with ancient DNA right where the nucleus would have been in dinosaur osteocytes.¹³⁹

Fresh Dinosaur Biomaterial #5: Ovalbumin (Proteins)

Another protein found in fossils that microbes don't make is called ovalbumin. It makes up 60–65% of the total protein in egg whites. Ovalbumin has been found in exceptionally preserved sauropod eggs discovered in Patagonia, Argentina, a dig site that included skeletal remains and soft tissues of embryonic titanosaurid dinosaurs. These findings were reported in a peer-reviewed scientific journal.¹⁴⁰

Fresh Dinosaur Biomaterial #6: Chitin

Chitin is a biochemical found in squid beaks and pens, arthropod exoskeletons, and certain fungi. If chitin was meant to last for millions of years, then it might have filled Earth's surface as dead insects, krill, and fungi left their remains over eons. Chitin is tough, but no known experiment supplies any reason to so much as suspect that it could last a million years, let alone hundreds of millions. Yet, at least two scientific studies report finding it in ancient fossils (dinosaur "era" and beyond).¹⁴¹ Our Creator equipped many microbes with unique enzymes that digest chitin, so what could have kept those microbes away from all that chitin for millions of years?

Fresh Dinosaur Biomaterial #7: Unmineralized Bone

Fresh-looking, un-mineralized dinosaur bones pop up in dig sites around the world. In Alaska, for example, a petroleum

geologist working for Shell Oil Company discovered well-preserved bones in Alaska along the Colville River. The bones looked so fresh that he assumed these were recently deposited, perhaps belonging to a mammoth or bison. Twenty years later scientists recognized them as *Edmontosaurus* bones—a duck-billed dinosaur.¹⁴²



Figure 38. Unfossilized *Hadrosaur* Bone from the Liscomb Bone Bed.¹⁴³

Mineralized bones can look darker than bone and typically feel quite heavy. Un-mineralized bones retain their original structure, often including the tiny pore spaces in spongy bone, as shown in Figure 38. One study includes an interesting section that states:

Finally, a two-part mechanism, involving first cross-linking of molecular components and subsequent mineralization, is proposed to explain the surprising presence of still-soft elements in

fossil bone. These results suggest that present models of fossilization processes may be incomplete and that *soft tissue elements may be more commonly preserved, even in older specimens, than previously thought.*¹⁴⁴

Additionally, in many cases, osteocytes with defined nuclei are preserved, and may represent an important source for informative molecular data (emphasis added).

Numerous other studies published in scientific journals have described these un-mineralized dinosaur bone findings.¹⁴⁵

Sometimes evolutionists are surprised by the fact that many dinosaur bones contain “fresh,” original bone. It seems that decades of conditioning that “dinosaur bones become solid rocks” and ideas of “millions of years” have framed assumptions that are frequently being broken today.

However, researchers out in the field—actually digging up bones—oftentimes have a different viewpoint. Take Dr. Mary Schweitzer’s testimony for example, where she notes that many “fresh” dinosaur bones still have the stench of death:

This shifting perspective clicked with Schweitzer’s intuitions that dinosaur remains were more than chunks of stone. Once, when she was working with a *T. rex* skeleton harvested from Hell Creek, she noticed that the fossil exuded a distinctly organic odor. “It smelled just like one of the cadavers we had in the lab who had been treated with chemotherapy before he died,” she says. Given the conventional wisdom that such fossils were made up entirely of minerals, Schweitzer was anxious when mentioning this to Horner [a leading paleontologist]. “But he said, ‘Oh, yeah, all Hell Creek bones smell,’” she says. To most old-line paleontologists, the smell of death didn’t even

register. To Schweitzer, it meant that traces of life might still cling to those bones.¹⁴⁶

Experienced dinosaur fossil collectors have developed similar opinions. Take experienced dinosaur hunter and wholesaler, Alan Stout, for example. Alan Stout is a long-time fossil collector and has collected and sold millions of dollars' worth of dinosaur specimens to collectors, researchers, and museums worldwide.¹⁴⁷ After collecting in Montana's Hell Creek formation (and surrounding areas) for over a decade, Alan states that many of the dinosaur bones he finds in the Cretaceous layers are only 40% mineralized, with as much as 60% of the bone being original material. He even notes that some of the fossils "look just like they were buried yesterday after scraping off just the outside layer of mineralization."¹⁴⁸

Fresh Dinosaur Biomaterial #8: Collagen

Collagen is the main structural protein found in animal connective tissue. When boiled, collagen turns into gelatin, showing its sensitivity to temperature. In 2007, scientists discovered collagen amino acid sequences from a *T. rex* fossil that supposedly dated at 68 million years. Met with controversy, some suggested these proteins came from lab workers who accidentally contaminated the samples being studied. Or perhaps traces of ostrich bone proteins lingered in the equipment used in the study. Some even said, well perhaps "a bird died on top of the *T. rex* excavation site."¹⁴⁹ However, three separate labs verified collagen in dinosaurs in 2009¹⁵⁰ and again in January 2017.¹⁵¹ The 2017 study even confirmed the collagen at the *molecular level*, and stated, "We are confident that the results we obtained are not contamination and that this collagen is original to the specimen."¹⁵²

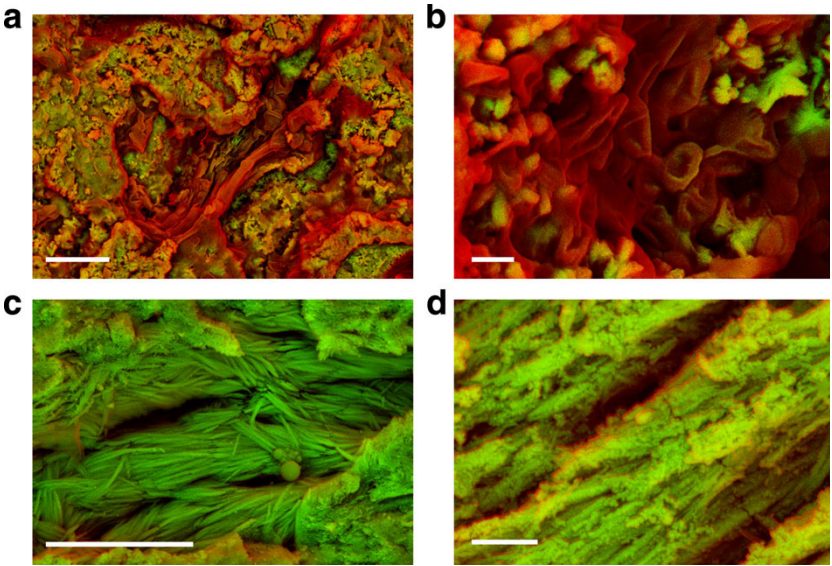


Figure 39. Fibers and Cellular Structures in Dinosaur Specimens.¹⁵³

Experiments have projected that the absolute theoretical maximum life of collagen ranges from 300,000 to 900,000 years under the best possible conditions.¹⁵⁴ This shows that collagen proteins should not last one million years, but could (in the absence of microbes) last for thousands of years. This confronts millions-of-years age assignments for dinosaur remains, but is consistent with the biblical time frame of thousands of years.

However, the rescuing devices being offered by evolutionists are not far behind. For example, in a recent article published in *Science*, Dr. Schweitzer tried to explain how the collagen sequences supposedly survived tens of millions of years: "... as red blood cells decay after an animal dies, iron liberated from their hemoglobin may react with nearby proteins, linking them together. This crosslinking, she says, causes proteins to precipitate out of solution, drying them out in a way that helps preserve them." Critical of this idea, however, Dr. Matthew Collins, a paleoproteomics expert at the University of York in the United Kingdom, stated that he doesn't think that

the process described by Dr. Schweitzer could “arrest protein degradation for tens of millions of years, so he, for one, remains skeptical of Schweitzer’s claim: ‘Proteins decay in an orderly fashion. We can slow it down, but not by a lot.’”¹⁵⁵

Fresh Dinosaur Biomaterial #9: DNA (Limited)

One measured decay rate of DNA, extracted from recently deposited fossil bird bones, showed a half-life of 521 years. DNA decays quickly. It should have spontaneously decayed into smaller chemicals after several tens of thousands of years—and it could only last that long if kept cool. A few brave secular scientists have reported DNA structures from dinosaur bones, although they did not directly address the question of its age.¹⁵⁶

Fresh Dinosaur Biomaterial #10: Skin Pigments

In 2008, a group of paleontologists found exceptionally well-preserved *Psittacosaurus* remains in China and published images of dinosaur collagen fiber bundles. Other scientists published stunning skin color images from a separate *Psittacosaurus*, also from China, and found evidence of original, unaltered pigments including carotenoids and melanins. Nobody has performed an experiment that so much as suggests these pigments could last a million years. Still other studies have reported scaled skin and hemoglobin decay products—still colored red, as were some of Dr. Mary Schweitzer’s *T. rex* and hadrosaurine samples—in a Kansas mosasaur.¹⁵⁷

The latest findings continue to confirm the recent demise of most of the dinosaurs by a massive Flood. Consider this 3,000-pound nodosaur fossil just found in Canada shown in Figure 40. Evolutionists date this fossil at 110 million years old. But how did everything stay intact for so long? Skin pigment, guts, scales, full boney armor, keratin—even its last meal was found in its stomach! Paleobiologist Jakob Vinther said, “The

dinosaur is so well preserved that it ‘might have been walking around a couple of weeks ago, I’ve never seen anything like this.’¹⁵⁸ Rather than being scavenged after death, this dinosaur was rapidly entombed by Noah’s Flood just thousands of years ago.



Figure 40. Nodosaur Fossil with Fossilized Skin.¹⁵⁹

Fresh Dinosaur Biomaterial #11: PHEX (Proteins)

PHEX is a protein involved in bone mineralization in mammals. In 2013, Dr. Mary Schweitzer published detailed findings of the soft, transparent microstructures her team found in dinosaur bones. Because this discovery was so controversial, her team used advanced mass spectrometry techniques to confirm the findings. Other methods demonstrated that proteins such as actin, tubulin, and PHEX found in osteocytes from two different dinosaurs were not from some form of contamination but came from the creatures' remains.¹⁶⁰

Fresh Dinosaur Biomaterial #12: Histone H4 (Proteins)

Bacteria do not make histone H4, but animals do. DNA wraps around it like a spool. Dr. Mary Schweitzer and her team found this protein inside a hadrosaur femur found in the Hell Creek Formation in Montana, which bears an assigned age of 67 million years. It might last for thousands of years if kept sterile, but no evidence so much as hints that it could last for a million years.¹⁶¹

Fresh Dinosaur Biomaterial #13: Keratin (Structural Protein)

Keratin forms the main structural constituent of hair, feathers, hooves, claws, and horns. Some modern lizard skins contain tiny disks of keratin embedded in their scales. Researchers identified keratin protein in fossilized lizard skin scales from the Green River Formation that supposedly date to 50 million years ago. They explained its presence with a story about clay minerals attaching to the keratin to hold it in place for all that time. However, water would have to deposit the clay, and water helps rapidly degrade keratin. The most scientifically responsible explanation should be the simplest one—that this fossil is thousands, not millions, of years old.¹⁶² Other fossils with original keratin include *Archaeopteryx*¹⁶³ bird feather residue and stegosaur spikes.¹⁶⁴

Fresh Dinosaur Biomaterial #14: Elastin

Elastin is a highly elastic protein found in connective tissue, skin, and bones. It helps body parts resume their shape after stretching or contracting, like when skin gets poked or pinched. Bacteria don't need it or make it, and elastin should not last a million years, even in the best preservation environment. Scientists reported finding this protein in a hadrosaur femur found in Montana.¹⁶⁵

Fresh Dinosaur Biomaterial #15: Cartilage

A 2020 article in a peer-reviewed science journal reports¹⁶⁶ a discovery that was so astounding the lead scientist said, “I couldn't believe it, my heart almost stopped beating.” What was the finding? Soft dinosaur cartilage with *original molecules* still present. To remove any doubt that what they were seeing was real, they ran additional laboratory tests that supported “the presence of remnants of original cartilaginous proteins in this dinosaur.”

In one bone fragment they noticed some “exquisitely preserved cells within preserved calcified cartilage tissues on the edges of a bone” with two cartilage cells still linked together by an intercellular bridge, which is consistent with the end of cell division (see left image below). The image also reveals dark material resembling a cell nucleus. One cartilage cell also had dark, elongated structures that were “morphologically consistent with chromosomes” (center image below).



Figure 41. Dinosaur Cartilage.¹⁶⁷

Fresh Dinosaur Biomaterial #16: Nerves

In 2021, in-tact nerves were found inside of a *Triceratops* occipital condyle, which is a hard, round-shaped bone that protrudes from the base of the skull that mounts to the end of the spine—just like a trailer ball-and-hitch design.¹⁶⁸

Dr. Armitage compared this discovery with nerves from a chicken (see below) and demonstrated that the structures from the fossil have all the physical characteristics of modern chicken nerves, indicating they really are nerves from a vertebrate animal (not contaminants).

The white bars in the image below show the scale in micrometers (millionths of a meter). The pattern of dark lines wrapping around the chicken nerve on the left form a sheath that wraps around the bundle of fibers which makes up the nerve. The image on the right (from the *Triceratops*) shows the same pattern. How is that for a bone that is supposedly millions of years old?

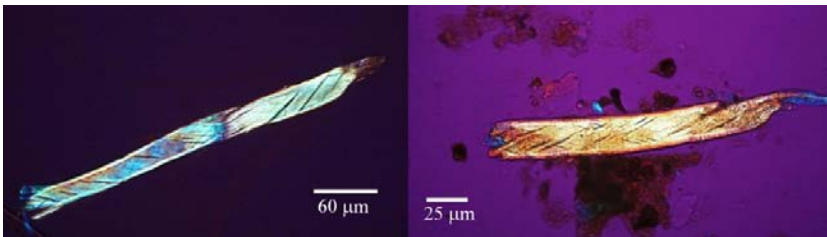


Figure 42. Dinosaur Nerves. A nerve from a chicken (left) compared to one isolated from a dinosaur fossil (right).¹⁶⁹

Making this even more convincing, Dr. Armitage took steps to ensure that these nerves were not “petrified structures” of a nerve, but were *actually the nerves themselves*. This was done by decalcifying the bone, leaving soft tissues behind: “The flexibility of individual decalcified nerves was astonishing. Nerves held at each end with fine needle forceps only broke into two pieces after repeated tugging. An example of the flexibility of these nerves ... where the fascicle rotates through a gentle,

unbroken loop and descends into other curvatures before terminating to a point.”

Biomaterial Summary

Because these findings are game changers, they are not without challenge by those who hold strongly to evolutionary ideas. Some of the rescuing devices that have been offered to attempt to explain these findings include iron in the blood acting as a preservative, the material being mistaken from a bird carcass mixed with the fossil, laboratory contamination, and even microbial biofilm (from bacteria in the bones). These explanations show an eagerness to attempt to dismiss the findings while clinging to the belief in millions of years. Rather than questioning the supposed long ages needed to prop up the evolutionary view, they seek other explanations to explain the presence of these materials, desperately denying the obvious.

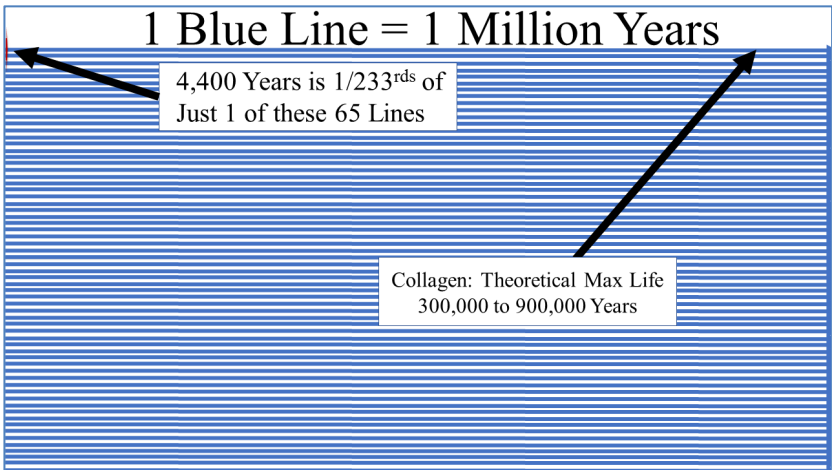


Figure 43. Dinosaur Biomaterials Time Comparison.

Figure 43 shows a simulated timeline to attempt to put these findings into perspective. Each of these 65 lines represents 1 million years. Showing 4,400 years on this chart is difficult, but is represented by a tiny dot in the upper left, which is

1/233rds of just one of these lines, or less than one-half of 1 percent of one of these lines. While this assumption can never be tested, some studies have measured an absolute theoretical maximum life of between 300,000 and 900,000 years.¹⁷⁰ If these dinosaur bones are really 65 million years old (and older), this collagen lasted for *72 to 217 times longer than these measured and extrapolated maximum collagen shelf lives*. Does believing these materials could last that long require strong faith?

Is it really possible that all 16 of these biomaterials lasted for 65 million years? Or, were they recent deposits that were quickly sealed in Noah's Flood only thousands of years ago? You can decide, but one thing stands for certain: Given the positions that scientists have held for decades on bio-organic decay rates, all 16 of the materials discussed above clearly and easily—without any academic caveats—**fit the Genesis timeline just fine**. But they don't fit the 65 million-year timeline without severe **academic torture**.

In the words of paleontologist Dr. Mary Schweitzer: “What really bothers people is: Why the heck is this stuff there...A lot of people aren't willing to accept the data until we come up with a mechanism for preservation...We're not there yet. All I can say is: Here's what we see, here's what we've done, and here's our results.”¹⁷¹ Evidence abounds showing the extreme resistance of secular institutions accepting the implications of dinosaur soft tissue. An article in *Discover* magazine¹⁷² documented that Dr. Schweitzer “was having a hard time” trying to get her soft tissue dinosaur evidence published in scientific journals. Dr. Schweitzer stated, “I had one reviewer tell me that he didn't care what the data said, he knew that what I was finding wasn't possible.” When Dr. Schweitzer wrote back asking, “Well, what data would convince you?” the reviewer stated, “None.” Professor Mark Armitage was actually fired from his position at a university after publishing the soft tissue results he found in *Triceratops* horn.¹⁷³

The fact that many dinosaur fossils are not “just rocks,” but are actually still bones, should alone move most reasonable minds out of the “millions of years” framework. But the fact that evolutionists have somehow excluded the realities of biological decay from dinosaur bones is also actually quite telling from both scientific and theological perspectives (2 Peter 3 and Romans 1). Rather than accepting the obvious conclusion that the bones are only thousands of years old—not millions—many continue to work fiercely to find ways to stretch the dinosaur fossil record out millions of years beyond what the obvious evidence points to. Rather than shortening the timeline to fit the obvious conclusion suggested by the presence of the 16 bio-organic materials, many work feverishly to find ways to stretch the decay rates out to over 100 times longer than the present science shows they can last (as in the case with collagen, discussed above).

Does the Fossil Record Show Transitional Forms?

Dr. Carl Werner and his wife Debbie invested over 14 years of their lives investigating “the best museums and dig sites around the globe [and] photographing thousands of original fossils and the actual fossil layers where they were found.”¹⁷⁴ After visiting hundreds of museums and interviewing hundreds of paleontologists, scientists, and museum curators, Dr. Werner concluded: “Now, 150 years after Darwin wrote his book, this problem still persists. Overall, the fossil record is rich—200 million fossils in museums—but the predicted evolutionary ancestors are missing, seemingly contradicting evolution.”¹⁷⁵ He continues with a series of examples:

- Museums have collected the fossil remains of 100,000 individual dinosaurs, but have not found a single direct ancestor for any dinosaur species.
- Approximately 200,000 fossil birds have been found, but ancestors of the oldest birds have yet to be discovered.

- The remains of 100,000 fossilized turtles have been collected by museums, yet the direct ancestors of turtles are missing.
- Nearly 1,000 flying reptiles (pterosaurs) have been collected, but no ancestors showing ground reptiles evolving into flying reptiles have been found.
- Over 1,000 fossil bats have been collected by museums, but no ancestors have been found showing a ground mammal slowly evolving into a flying mammal.
- Approximately 500,000 fossil fish have been collected, and 100,000,000 invertebrates have been collected, but ancestors for the theoretical first fish—a series of fossils showing an invertebrate changing into a fish—are unknown.
- Over 1,000 fossil sea lions have been collected, but not a single ancestor of sea lions has been found.
- Nearly 5,000 fossilized seals have been collected, but not a single ancestor has been found.

Dinosaur Fossil Transitions and Ancestors

While doing his research, Dr. Werner noted, “If evolution was not true, and if animals did not change over time, I should be able to find modern-appearing plants and modern-appearing animals in the dinosaur rock layers. And this is in fact what I found.” Dr. Werner has documented 432 mammal species in the dinosaur fossil layers. After visiting 60 museums around the world, he did not find a single complete mammal skeleton from the dinosaur layers displayed at **any** of these museums. Some mammals are even found in the stomachs of dinosaurs! These mammals are missing because they don’t fit the evolutionary story represented by most museums, where the “mammal” era follows after the “dinosaur” era. The fact is that hundreds of mammal species are found buried with dinosaurs.

Mixed in among dinosaurs Dr. Werner found “all of today’s reptile groups” as well as **birds**. How does this work if dinosaurs supposedly evolved into birds as evolutionists claim?

Something's not lining up with evolution theory! In fact, at least 120 bird species¹⁷⁶ have been found buried alongside the dinosaurs, including numerous "modern" looking birds like loons, parrots, flamingos, cormorants, sandpipers, owls, penguins, avocets, ducks, and numerous waterfowl.¹⁷⁷ Dinosaur footprints have also been found right alongside bird footprints.¹⁷⁸ The fact is that birds have existed alongside land creatures since the creation week.

Leading dinosaur expert Dr. Weishample wrote this about dinosaur ancestors: "From my reading of the fossil record of dinosaurs, no direct ancestors have been discovered for **any** dinosaur species. Alas, my list of dinosaurian ancestors is an empty one."¹⁷⁹ This sure seems to match the Bible's account—God put them here, fully formed.

Consider pterosaurs—massive flying reptiles with wingspans sometimes over 40 feet that could possibly only fly in the pre-Flood world.¹⁸⁰ Dr. Viohl, Curator of the Famous Jura Museum in Germany said, "We know only little about the evolution of pterosaurs. The ancestors are not known... When the pterosaurs first appear in the geologic record, they were completely perfect. They were perfect pterosaurs."¹⁸¹ After finding so many specimens in complete form, shouldn't *some* predecessors have been found by now?

Figure 44 shows the widespread distribution of pterosaur fossils around the world. Isn't it interesting that they are found everywhere? But that's not the only thing—they're found in every fossil layer from what evolutionists refer to as the Mesozoic Era (from the Late Triassic to Late Cretaceous, spanning from 228 to 66 million years ago in the evolutionary timeline). Is it possible that they are found in these different major rock units because—as flyers—they had the best chance of surviving the longest during the Flood to escape to safer areas as the Flood unfolded?

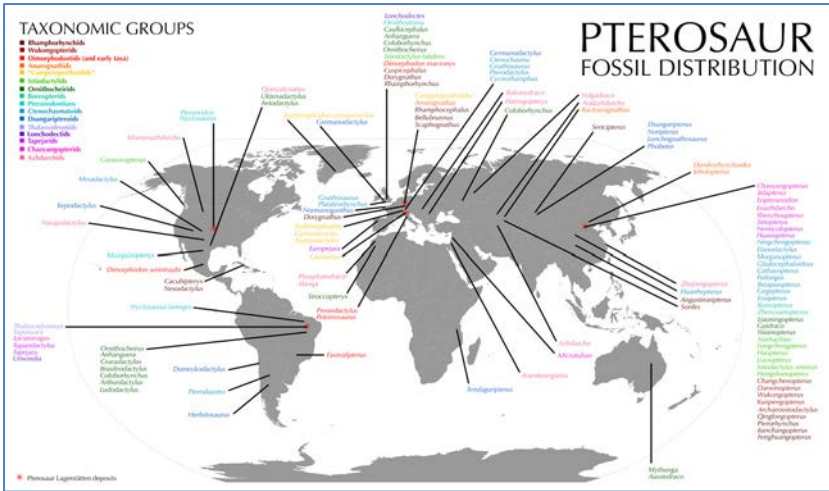


Figure 44. Pterosaur Fossil Distribution Map.¹⁸²

If museums have over 1,000 fossilized pterosaurs, why haven't they found any fossils that have been classified as "pre-pterosaurs"? Why are pterosaurs always found in complete form? Where are the transitional fossils that should exist if evolution theory is true?

Perhaps this explains why the evolutionary ideas about dinosaur ancestors keep changing—especially when they've now found dinosaurs even buried alongside their supposed ancestors.¹⁸³ After Dr. Werner interviewed dozens of leading dinosaur experts from museums across the globe about dinosaur ancestors and transitions, he summarized his findings on this chart from the Chicago Field Museum.

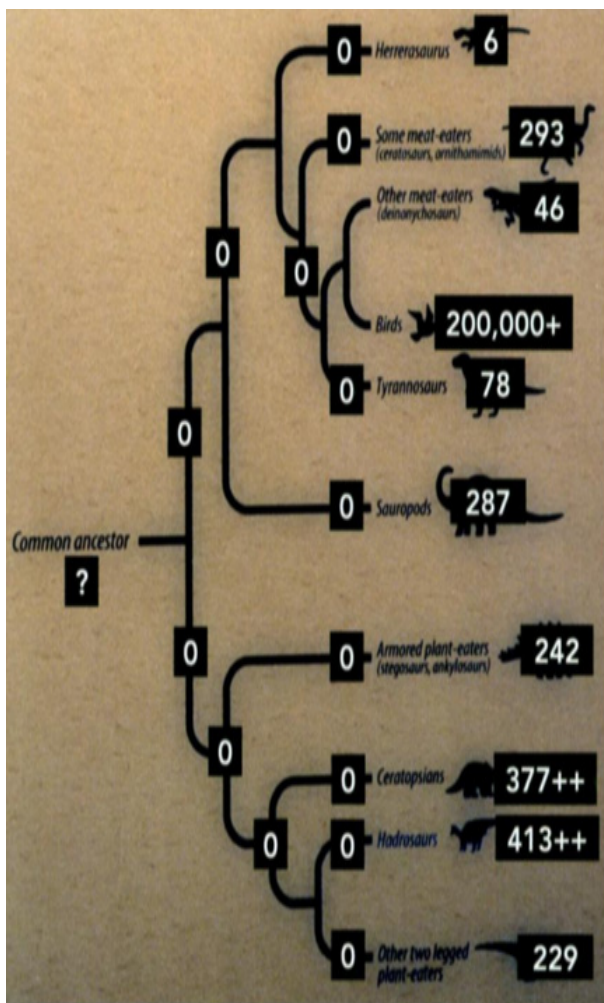


Figure 45. Dinosaur “Transitions.”¹⁸⁴

Note the counts of the different dinosaur varieties found—for example, the 78 *T. rex* specimens. Think about it—if over 100,000 dinosaurs have been collected by museums and dinosaurs evolved from one type into another as theorized on the chart, shouldn’t there be counts on the nodes of these supposed branches between dinosaur kinds? Instead, this chart just demonstrates what we would expect if creation is true: the

counts of the individual types of creatures found, with zero transitions.

It's also amazing when you look at the creatures on this chart that are supposedly evolving from the same branch, yet they are so obviously different—like *Ankylosaurus* and *Triceratops*. They've never found a single creature that looks anything like an earlier version of either of these dinosaurs, or one that looks like some hybrid of the two of them.

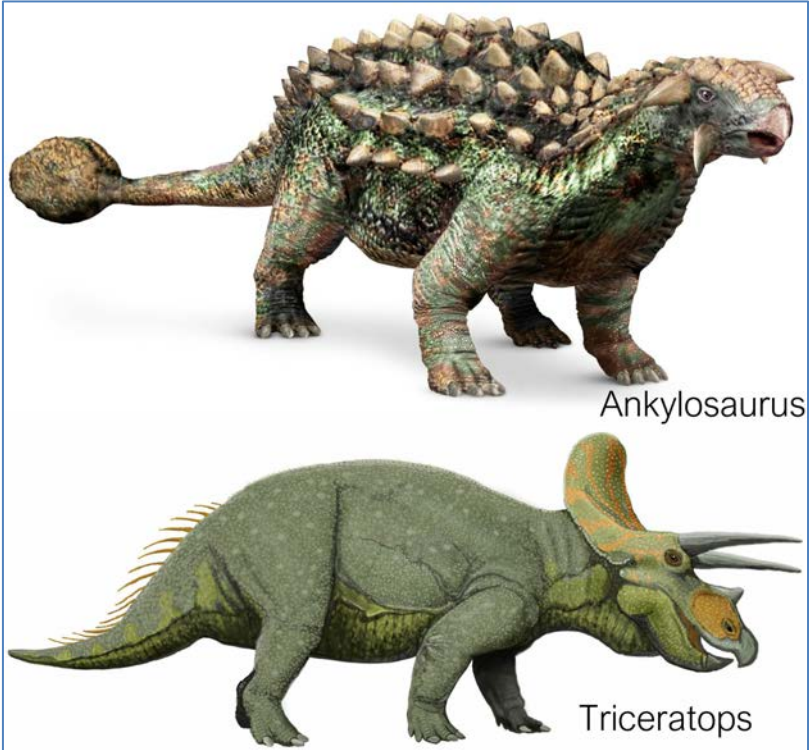


Figure 46. *Ankylosaurus* and *Triceratops* in the same evolutionary branch? If they both come from a supposed common ancestor, where are all the millions of transitional design changes it would take to go from one to the other?

With hundreds of these creatures found in their existing form—and always found in these forms—it becomes clear that the evolution of dinosaurs is a far, far reach. If they both come

from a supposed common ancestor, where are all the millions of transitional design changes it would take to go from one of these creatures to the other? Yet not a single such creature has ever been found.

The chart in Figure 47 was reproduced from *The Encyclopedia of Dinosaurs* published in association with the British Museum of Natural History.¹⁸⁵ In small print at the bottom it says: “Tinted areas indicate solid fossil evidence.” We’ve highlighted these in yellow (lighter shade on the tops of most bars if you’re viewing this in black and white). The rest of the chart—shown in grey—shows the **theoretical** ideas about dinosaur ancestors and transitions in the dinosaur evolutionary tree. When the theoretical grey lines are removed (the imagined ancestors and transitions) all that remains are dinosaur “kinds” that were created in the beginning. Then, when the long ages are removed, you can see that these dinosaur kinds suddenly appeared together—by creation—on the sixth day of Creation Week. So much for dinosaur ancestors and transitions!

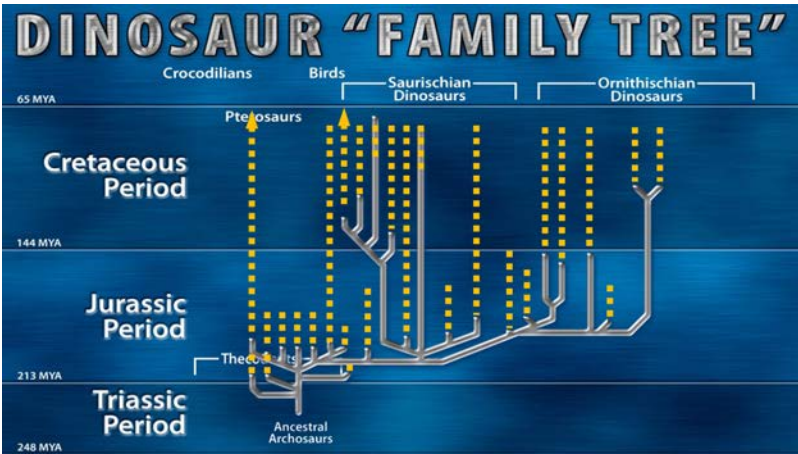


Figure 47. Dinosaur “Ancestors” and “Transitions.”¹⁸⁶

Summary

If this chapter was not enough, one more key consideration should clearly convince. What if, after countless

millions of hours spent by researchers mining the crust of the Earth for fossil evidence, the fossil record is essentially *complete*? That is, it stands to reason that the millions of fossils we have collected over the last 150 years *exhaustively* record all basic life forms that ever lived, with only a few additional “big surprises” to be found. Given this, can we say that the question of transitional forms has been *asked and answered*?

One way to find out is to “calculate the percentage of those animals living today that have also been found as fossils. In other words, if the fossil record is comprised of a high percentage of animals that are living today, then the fossil record could be viewed as being fairly complete; that is, most animals that have lived on the Earth have been fossilized and discovered.”¹⁸⁷ Carl Werner provides a chart demonstrating the results of such an investigation.¹⁸⁸

- Of the 43 living land animal *orders*, such as carnivores, rodents, bats, and apes, nearly all, or 97.7%, have been found as fossils. This means that at least one example from each animal order has been collected as a fossil.
- Of the 178 living land animal *families*, such as dogs, bears, hyenas, and cats, 87.8% have been found in fossils.

Evolutionists have had their chance—over 150 years and millions of fossils—to prove themselves, and they have come up wanting. The theory has been weighed, tested, measured, and falsified. Aren’t 200 million opportunities and one and one-half centuries enough time to answer the issue that *confounded* Darwin himself?

Why, if species have descended from other species by fine gradations, do we not everywhere see innumerable transitional forms? Why is not all nature in confusion, instead of the species being, as we see them, well defined?...But, as by this theory innumerable transitional forms must

have existed, why do we not find them embedded in countless numbers in the crust of the Earth?...But in the intermediate region, having intermediate conditions of life, why do we not now find closely-linking intermediate varieties? This difficulty for a long time quite confounded me.¹⁸⁹

Why an Asteroid did Not Wipe Out the Dinosaurs

Natural history museums spend millions on displays that promote the idea that an asteroid impact hitting the edge of the Yucatán peninsula of Mexico 66 million years ago was responsible for the final dinosaur extinction. While evolutionists have published over 90 different theories about this dinosaur extinction event, the asteroid theory takes the leading place in museums today.¹⁹⁰

But have you considered whether this single event could explain the simultaneous extinction of all dinosaurs around the world,¹⁹¹ including a massive dinosaur kill zone in North America that spans three countries and fourteen states, stretching over 1,800 miles long and 1,000 miles wide?

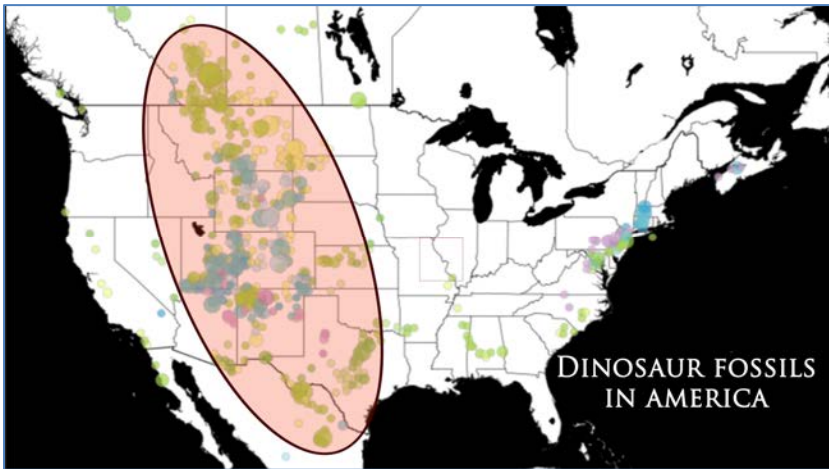


Figure 48. Dinosaur Fossils in America.¹⁹²

Over a million square miles across the American West are filled with every kind of dinosaur, and they're all mixed with other land animals, including birds, and all sorts of marine life like clams, rays, and sharks. In addition, many of these layers filled with dinosaurs are stacked one on top of the other. Could a single asteroid that hit over 1,500 miles away from the heart of this disaster zone really be responsible for all this?¹⁹³

This chapter explains why Catastrophic Plate Tectonics during Noah's Flood provides a better explanation.

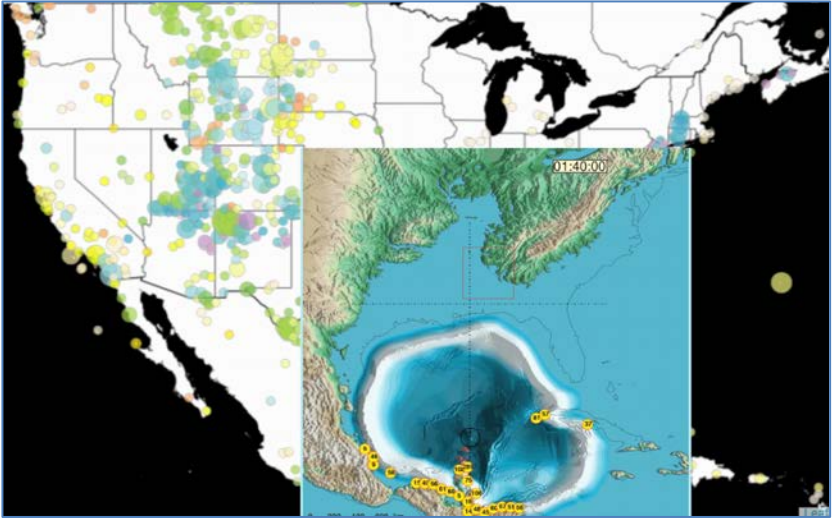


Figure 49. The Chicxulub Asteroid Crater Responsible for Dinosaur Extinction?¹⁹⁴

An asteroid hitting the Yucatán peninsula would certainly have regional consequences that could easily spread over part of present-day Central America. But the billions of fossils in the middle of North America were buried in multiple mud, sand, and volcanic ash layers from successive, watery events, and some of these layers are hundreds of feet thick and stretch over multiple states in the U.S. How could a single asteroid, falling well over a thousand miles away from the center of this area, bury dinosaurs across 14 U.S. states under hundreds of feet of mud, sand, and volcanic ash?

For example, consider the Lance Formation. This geological unit spreads across several states and is packed with fossils of many sorts of land, air, and marine creatures, including small and large dinosaurs, pterosaurs, fish, mammals, crocodiles, lizards, snakes, turtles, birds, frogs, and salamanders. It's quite obvious that entire ecosystems were buried here during Noah's Flood.



Figure 50. Lance Formation.¹⁹⁵

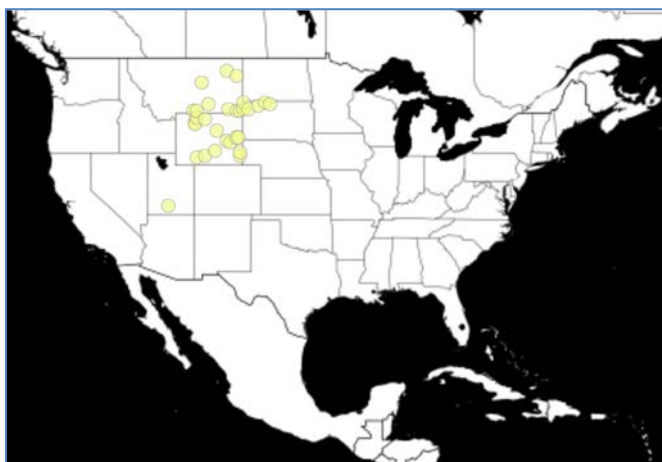


Figure 51. Lance Formation Dinosaur Fossils.¹⁹⁶

Doesn't it make perfect sense that these widespread mud, sand, and ash layers which are filled with dinosaur bones were deposited by a worldwide flood? It's fascinating to see how many secular paleontologists admit that dinosaurs died in watery catastrophes. In fact, the leading textbook on bonebeds which catalogues most of the largest bonebeds in the world, admits that most of them were laid down by watery catastrophes.¹⁹⁷

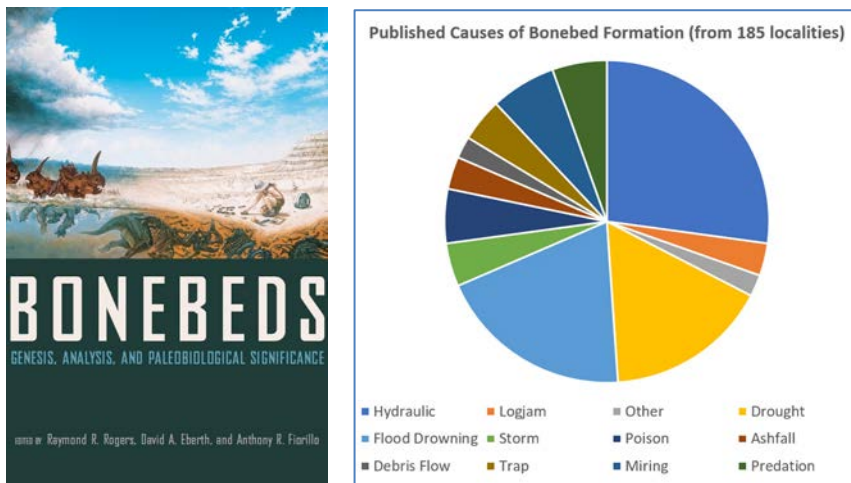


Figure 52. Bonebeds Database Reveals the Majority of Bonebeds were due to Watery Catastrophes.

When looking at the largest of these dinosaur bonebeds in Canada, secular scientists widely admit they were formed by dramatic, high-speed water events.¹⁹⁸

Let's not forget the most obvious clue about dinosaur extinction: They're all buried in sedimentary rock! There may be ash from volcanoes mixed in, but most dinosaur fossils have to be chiseled out of mud and sand layers that have hardened into stone. Many of these rock units laid down in layer-cake manner span thousands of square miles. What's unique about the dinosaurs is that they are found *in* the very mud and sand that killed them—often twisted about and disarticulated.

How could an asteroid impact all the way down in Mexico deposit these extensive mud and sand layers that are hundreds of feet thick and stretch laterally for thousands of miles? An asteroid would certainly create a crater on the Earth's surface, with mud and sand layers thinning out from the crater, but the actual dinosaur bone layers in the American West remain about the same thickness for hundreds of miles. Noah's Flood could do that, but an asteroid would not. The Bible says that surging Flood waters took months to cover the entire globe. Sure enough, dinosaurs are found in sequentially-laid mud and sand layers all over the Earth. Deposition of these layers must have occurred quickly one after the other because the upper surface of each layer is flat without erosion, indicating hardly any time passing before the next layer was laid on top of it by the next huge flood surge.

The other challenge for the asteroid theory is that the Cretaceous fossils that cover multiple states in the middle of North America are at elevations hundreds of feet **higher** than the current ocean level could have placed them. Even secular scientists explain that the only way to get these extensive fossils to their current elevation is through the massive flooding followed by buckling of the continent.¹⁹⁹ Earth's rapidly subducting crustal plates during Noah's Flood would have compressed and buckled the sedimentary layers deposited on the plates by cycles of numerous tsunamis flooding across the land, killing and burying dinosaurs mixed with marine life, as high as the elevations where we find them today.



Figure 53. Example of Geological Folding. The layers had to be bent and folded while still pliable.

A profound challenge for the asteroid theory of dinosaur extinction is that a single asteroid does not produce such multiple, continent-wide fossil-packed layers. Most dinosaur fossils are contained in **layers** of mud that were laid down in **successive** fashion—one after the other—as if by repeating very large amplitude tsunamis. These layers are often hundreds of feet thick and laterally continuous for thousands of miles. The well-developed Catastrophic Plate Tectonics theory accounts for these features in terms of rapidly subducting plates that repeatedly lock and then unlock and slip. Each slip event unleashes a large amplitude tsunami.

These rapidly subducting plates resulted in enormous volcanism that spewed megatons of ash that entombed countless dinosaurs in multiple states. The evidence for this is obvious. For example, the Independence Dike Swarm is a system of linear fissures that erupted during the Flood (see Figure 54).

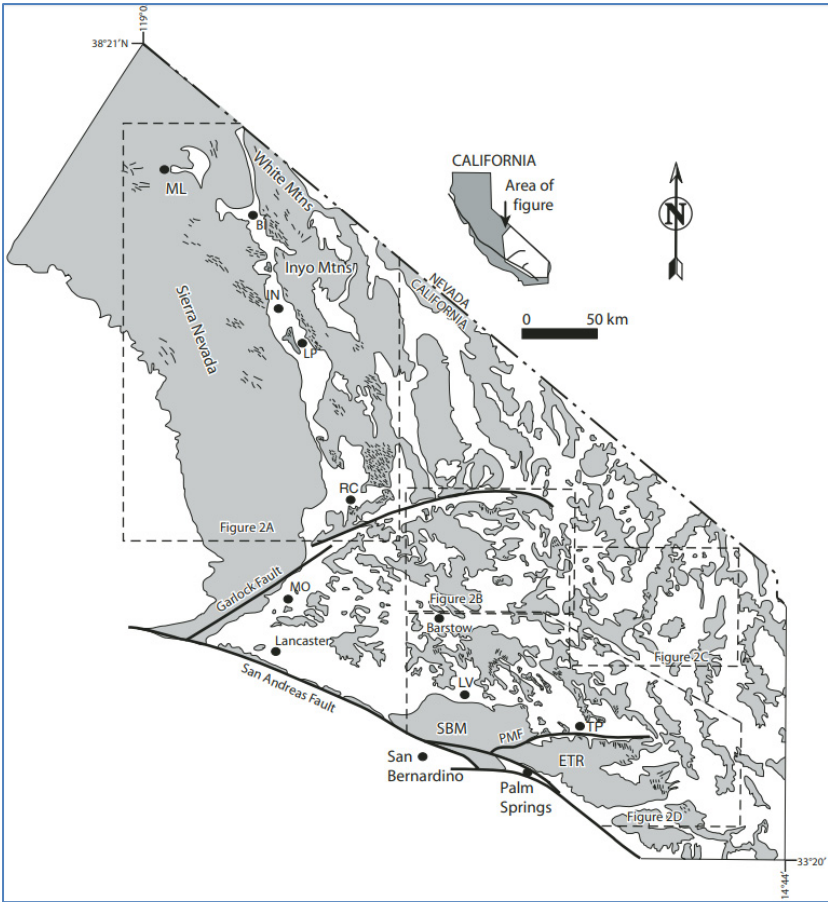


Figure 54. Independence Dyke Volcanic System.²⁰⁰

This system extends over 370 miles in southern California and belted out 4,000 cubic miles of ash that covered multiple states, leaving behind enormous ash deposits like the Brushy Basin Member which is 110 meters thick in eastern Utah and found in 35 other locations around the region.²⁰¹ These ash beds are mixed with sandstone brought in from massive, mud-filled tsunamis generated by catastrophic rifting. The countless dinosaurs buried in this mixture is exactly what we would expect to find with a worldwide Flood that involved

rapid oceanic rifting because both oceanic and volcanic upheaval was happening at the same time.

The case for the Biblical Flood grows even stronger when looking at how the strength of the volcanic systems and extent of the ash deposits declined after the Flood. Truly something big happened in the past that rapidly buried the dinosaurs in mud, sandstone, and ash, and it certainly wasn't an asteroid that fell over 1,500 miles away from the heart of this disaster zone. The rapidly subducting ocean plates created the Independence Dike Swarm during the Flood, depositing 4,000 cubic miles of ash. This was followed by a couple of major Yellowstone eruptions after the Flood that deposited 600 then 240 cubic miles of ash. This was later followed by the Long Valley Eruption that produced 150 cubic miles of ash, then the Crater Lake Eruption with only 17 cubic miles of ash, and finally the Mount Saint Helens Eruption which deposited only one-quarter cubic mile of ash. The volcanic eruptions appear to be growing less intense over time, which is consistent with large catastrophes during the flood followed by a slowing of tectonic plate movements, and thus fewer and less intense volcanic eruptions over time (see Figures 55 and 56).

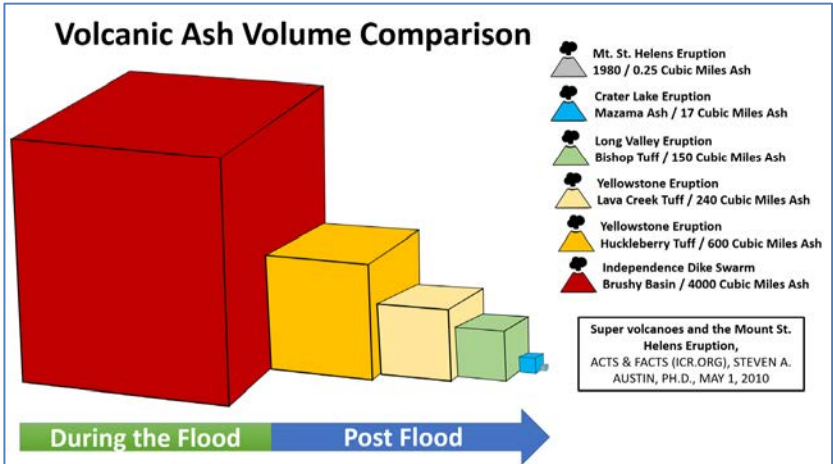


Figure 55. Volcanic Ash Volume Pre/Post Flood.²⁰²

Figure 56 shows the vast coverage of each of these volcanic systems, with the largest ones erupting during the Flood then gradually reducing intensity after the Flood.

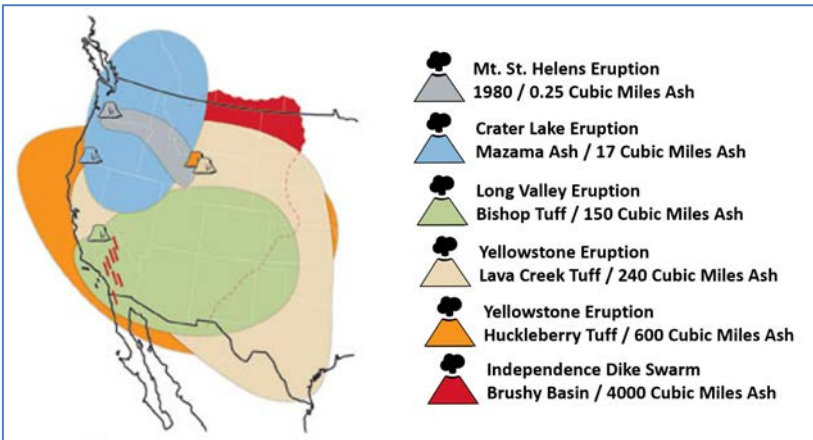


Figure 56. Volcanic System Coverage During/After the Flood.

Let's consider something else about the asteroid-dinosaur extinction theory: While museums portray the asteroid theory using expensive exhibits, did you know that the scientific community is far from settled on this idea? Over the last 30 years, hundreds of geologists have disagreed with the asteroid theory, believing instead that an extreme episode of volcanism explains the final dinosaur extinction.²⁰³

These scientists assert that it was the massive volcanic eruptions of basalt in India—called the Deccan Traps—that were primarily responsible for the dinosaur demise. These eruptions extruded over 288,000 cubic miles of lava, which is over **one million times** more voluminous than the Mount Saint Helens eruption in 1980.²⁰⁴ We're talking about enough lava to cover the state of California one mile deep.

Flood basalts like the Deccan Traps are found on several continents, usually with fossil-bearing sedimentary layers beneath them, and further fossil-bearing sedimentary layers above them, indicating they also are the result of spectacular, catastrophic processes during the Genesis Flood.²⁰⁵ Princeton

Professor Dr. Gerta Keller has been at the forefront of this disagreement with the asteroid theory that started over 30 years ago. She has explained her findings at numerous GSA conferences and articles.²⁰⁶

Creationists have no problem with both the Chicxulub impact and the Deccan lava eruptions happening around the same time during the Flood. In fact, the impact in Mexico and numerous others could have started or accelerated the Deccan eruptions and others during the Flood by triggering the breakup of the “fountains of the great deep” mentioned in Genesis. Even some secular geologists have suggested that the impact in Mexico may well have triggered or accelerated the Deccan eruptions.²⁰⁷ The evidence for large numbers of asteroid impacts during the Flood is compelling. In fact, a survey found that 71 of 110 asteroid impacts are found in fossil-bearing sedimentary rock layers—layers that were laid down by the Flood. Most of the remaining 39 likely occurred after the Flood.²⁰⁸

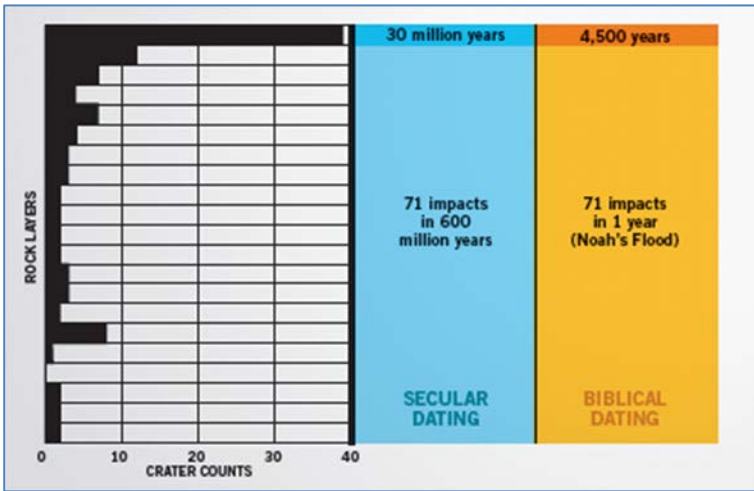


Figure 57. A History of Craters: Two Interpretations. Geologists have found over a hundred impact craters (horizontal black bars) on Earth. On this table, 39 of the 110 impacts were deposited in the uppermost rock layers, and the rest were spread over the many lower layers.²⁰⁹

Indeed, the impact of a large asteroid may well have initiated the catastrophic movement of the tectonic plates at the onset of the Flood. Once plate subduction was initiated, molten rock rose from below to fill rifts in the zones where plates were pulling apart. Disturbances in the Earth's interior from the rapidly subducting plates subsequently led to volcanic eruptions around the world. The dinosaur fossil record attests to this overall picture, with millions of creatures buried in muddy layers by subduction-driven tsunamis.

“K–Pg” Boundary

Geologists have found that in many regions the boundary between the Cretaceous and Paleogene layers, called the “K–Pg” boundary, is marked by high levels of the rare metal iridium. While it is true that nearly all dinosaur fossils are absent above this K-Pg boundary, the areas with high iridium levels are not restricted to the thin zone that defines this boundary.

In fact, in the same regions where the K-Pg boundary was discovered, recent studies have identified a four-meter-thick layer rich in iridium—not the thin line shown in most textbooks. These studies reveal that there was not a single iridium “spike,” but rather a horizon of peak values within a sequence of iridium-enriched clays that were most likely deposited by volcanic activity as well as an asteroid or series of asteroids.²¹⁰

Numerous scientists have taken the stance that these wide bands simply do not support the idea of a single impact extinction event.²¹¹ In fact, Dr. Keller and other scientists²¹² invested over 30 years looking for evidence to support the Chicxulub impact in the Yucatan peninsula as the cause for the K-Pg extinction event and found very little evidence for such a conclusion. Although they found occurrences of iridium anomalies in Italy, Denmark, Tunisia, and India in the context of the K-Pg boundary, these were **never** associated with Chicxulub impact ejecta. Other scientists have also been

puzzled to find out there is virtually no iridium in the Chicxulub ejecta material itself—not in the layer at the base of the event deposit nor in the ejecta layer above.²¹³ This was not what evolutionists were expecting—how could the very asteroid impact site that was supposedly responsible for depositing all the iridium associated with the K-Pg boundary extinction, not itself have iridium?

From a Biblical history viewpoint, this makes perfect sense because volcanic eruptions also release iridium and the resulting ash and dust clouds tend to spread worldwide. This certainly appears to have been the case for the eruptions that produced the Deccan Traps.²¹⁴ Indeed, airborne particles above Hawaiian basaltic eruptions have been found to be highly enriched in iridium, at levels much higher than at the K-Pg boundary.²¹⁵

Certainly, asteroids that have impacted the Earth in the past must have contributed to iridium levels, especially in regions where the sedimentation rate was relatively slow and iridium fallout from the atmosphere could concentrate. This would have been true during the Flood. However, since volcanism was so voluminous and widespread during the Flood, this latter explanation seems to fit the data much better than does the asteroid hypothesis,²¹⁶ including intervals that evolutionists identify as great extinction events within their worldview.²¹⁷

Next let's consider the timing of the asteroid impact and the dinosaur extinction. Natural history museums portray the asteroid as wiping out at least two-thirds of all species of life in just days, weeks, and months after the event. However, evolutionary dating now places the impact 100,000 to 300,000 years **below** the K-Pg boundary,²¹⁸ that is, the point marking the time of dinosaur extinction. This is because researchers now assert that the 13 to 30 feet of sandstone west of the impact layer was deposited hundreds of thousands of years **before** the dinosaur extinction.²¹⁹ This obviously pushes the Chicxulub impact back in time well before the extinction.²²⁰

The Biblical timeline, however, does not have any such dating challenges. Biblical genealogies constrain the Flood to just thousands of years ago and implies that at least one of the assumptions behind radiometric dating is invalid. The 16 different types of bio-organic materials including blood vessels, collagen and bone cells still found in dinosaur bones also lends powerful support to the Biblical timeline. Consistent with the Biblical timeframe, both asteroids and volcanism were concurrent with tsunami waves and crustal deformation induced by Catastrophic Plate Tectonics, which buried the dinosaurs and many other animals in sediments very rapidly.

Noah's Flood and the Tanis Fossil Bed

Let's look at a recent fossil bed that supports these conclusions. In 2019 the discovery of the "Tanis" fossil bed in North Dakota was announced—a discovery that many paleontologists are calling the "find of the century."²²¹ This two-acre fossil bed is a snapshot of what North America looked like at the peak of the Genesis Flood. This site is full of fossils, many in upright rather than flat positions, including trees, plants, and saltwater mosasaurs mixed with thousands of complete freshwater paddlefish and sturgeons. The pristine condition of the fossils suggest that they were covered almost immediately after death.

But the most amazing thing about this site is that the creatures here were buried with millions of microtektites—tiny blobs of glass that form when molten rock is blasted into the air by an asteroid impact and then fall back to Earth as smoking hot projectiles about the size of BBs. These were found jammed into the gills of about half of the fossilized fish, in amber, and buried into small mud dents around the site. Some believe these microtektites at this site are connected to the Chicxulub asteroid falling about 1,900 miles away.

They also found broken remains from almost all known dinosaur categories in the area,²²² including eggs and hatchlings, and a *Triceratops* hip complete with tissue

impressions, indicating a rapid death and burial. Even the evolutionary scientists admit this bonebed was caused by a flood, specifically two massive tsunamis they believe were initiated by the Chicxulub impact 1,900 miles south.²²³ Biblical Creationists, however, find evidence that leads to much broader flooding, mostly coming from rapidly subducting plates along the west coast of the continent.

Their research paper well established that this site was the result of at least two successive tsunamis, evidenced by the combination of land and marine creatures mixed together, the 3-D condition of the fossils, and the various age groups within each species, indicating a complete snapshot in time. The fossil fish also had clear signs of “tetany,” a condition indicating sudden death due to poisoning, asphyxiation, or choking.

They’re also clear that at least two major tsunamis occurred one right after the other, as proven by rapid sedimentation and a 180-degree change in flow direction, indicating inundation and backflow phases. They also found no evidence of roots or burrows nor of branches with attached leaves at the boundary between the tsunami layers.²²⁴

Noah’s Flood and the Hanson Ranch Fossils

Another fossil site that supports the global Flood as the explanation behind the dinosaur extinction is the Hanson Ranch Bonebed in the Lance Formation of eastern Wyoming. This 80-acre dinosaur graveyard contains over a million bones, many of which are concentrated in a thin 1–2 meter layer of mudstone. One 500 square meter excavation area has yielded over 8,000 bones, most of which belong to hadrosaurs.

Scientists believe that they were killed by a catastrophic event and their bones were later redeposited just weeks or months later because the bones are in a graded bed with big bones at the bottom and little bones at the top, a condition that requires sorting during a catastrophic emplacement. After these dinosaurs were killed by the initial event, their bodies floated, rotted, broke apart, and then just weeks or months later massive

amounts of water and mud picked up the collection of dead creatures and hydrologically sorted the bones, depositing them where they are today.²²⁵

Here is the amazing thing—it's not just Hanson Ranch that has tons of hadrosaur bones buried like this. Similar hadrosaur bonebeds are all over America. In fact, when comparing the representation of the various types of bones found at this site to five other hadrosaur bonebeds in Alaska, Montana, South Dakota, and Wyoming, scientists made an incredible finding: The types of bones found at these other locations were statistically significantly matched to the types of bones found at Hanson Ranch.²²⁶ This means that similar devastation and burial factors were in play at all six of these bonebeds, evidenced by all sites having high percentages of large limb and rib bones and low percentages of smaller bones like vertebrae and chevrons.

Scientists believe these unique burial conditions were caused by an initial death event, followed by temporary emplacement where decay and disarticulation occurred, then hydraulic winnowing removed the connected sections like vertebral columns and smaller bones before the remaining bones were swept away by underwater debris flow that later resulted in the final deposit.

Such a multi-phase, watery catastrophe doesn't line up with a single asteroid event, does it? What happened here and at the other correlated sites was clearly the result of a worldwide flood. Tsunamis from catastrophic rifting served the initial blow, killing these creatures and fracturing about 30% of their bones with "greenstick" fractures that only occur with fresh bones. This was followed by weeks or months of decomposition and disarticulation, and then their remains were later consolidated in the muddy layers they're buried in.

This also seems to be the case with another one of the largest hadrosaur bonebeds located in north-central Montana. An estimated 10,000 hadrosaurs are buried in this location in a thin layer spanning over one mile. These bones are disarticulated, oriented east to west, and some of the bones are

found standing upright, indicating a debris flow. Moreover, there are no young juveniles or babies in this bonebed, indicating these creatures were running from something, leaving all the young behind.

When evaluating the possibility of a mud slide creating this bonebed, paleo experts Horner and Gorman stated: “How could any mud slide, no matter how catastrophic, have the force to take a two- or three-ton animal that had just died and smash it around so much that its femur—still embedded in the flesh of its thigh—split lengthwise?”²²⁷ This certainly matches what they found at the Harris Ranch bonebeds, with over 30% of the bones having greenstick or spiral fractures.

Summary

All this evidence fits perfectly into what we would expect with a global Flood. The Chicxulub asteroid and others were pelting the Earth simultaneous with earthquake-generated tsunamis and volcanism from rapid plate motion, rifting, and subduction. Freshwater and saltwater creatures were buried together along with land animals and plants. Clear evidence shows that repeating tsunamis were responsible for transporting huge volumes of mud from the ocean and then retreating, leaving deposition. When widening out the view to the surrounding area, we see that this site in North Dakota is just a local snapshot of the larger-scale processes that generated the dinosaur fossil deposits of the Lance Formation in Wyoming, which is at the same level in the rock record as the Tanis site in North Dakota.

There’s something else that doesn’t quite line up with the asteroid extinction theory. If the asteroid was responsible for the ultimate dinosaur wipe-out, how did all the delicate creatures like mammals, frogs, birds, insects, fish, plants, and amphibians survive the same catastrophe? The dinosaurs and many marine reptiles were all mysteriously wiped out and fossilized while many other smaller and more environmentally sensitive animals lived on? How could such an impact be

powerful enough to wipe out all the tough, thick-skinned dinosaurs, but leave behind the fragile thin-skinned frogs and amphibians? The same goes for sensitive clams. And why do the frog and clam fossils found near dinosaur fossils look the same as frogs and clams alive today?²²⁸ If harmful chemicals and acids can soak right through the porous skin of frogs and amphibians, and silt chokes clam gills, how did they survive and the sturdy dinosaurs perish? Evolutionists also believe that small rodent-like mammals that later evolved into humans also somehow survived the asteroid by crawling into holes just a few feet underground.

Evolutionists also present the rescuing device for the incomplete dinosaur extinction with the idea that, “Dinosaurs didn’t really die out, they just evolved into birds.” This dino-to-bird theory resurfaced in the 1960s²²⁹ as a rescuing device for evolution, but the facts show that at least 120 species²³⁰ of birds were living at the same time as dinosaurs, including numerous “modern” looking birds like loons, parrots, flamingos, cormorants, sandpipers, owls, penguins, avocets, ducks, and numerous waterfowl.²³¹ Dinosaur footprints have even been found right alongside bird footprints.²³² The fact is that birds have existed alongside land creatures since the Creation week.

The evidence for a worldwide Flood burying the dinosaurs outside the Ark is everywhere. This happened just thousands of years ago during Noah’s Flood when the fountains of the great deep were broken apart and the year-long process of the worldwide Flood unfolded.

Massive oceanic rifting on a worldwide scale created new seafloor as old seafloor was pulled under the continents, creating cycles of tsunamis that occur when the seafloor plate binds to the overriding plate and then releases, just like how many tsunamis are generated today. As more and more seafloor was created at the ocean rifts, the new crust rose, pushing the bottom of the seafloor upwards. This caused the floodwaters to progressively rise higher and higher across the land. This explains the multiple layers in which these creatures are found

as they were buried by the rising flood waters and repetitive tsunamis.

Dinosaurs were buried violently during this process, with over 90% of them now found disarticulated, or torn apart. Many of them are even found choking on mud as they died with their necks arched backwards. Widespread volcanism that occurred during this process also shows this happened quickly—over a single year and not millions of years. With few if any volcanoes in the Morrison Formation itself where the bulk of the fossilized dinosaurs are found, geologists believe that the huge volume of volcanic ash in the Morrison Formation is from mega-volcanoes on the West Coast, lofted and carried far to the east by wind, or else transported eastward by tsunamis, or both. The Morrison formation's Brushy Basin Member alone spans five states and includes over 4,000 cubic miles of volcanic material. That's enough to cover the state of New Jersey in ash one half of a mile deep!

There are many plain indicators in the rocks and fossils that this happened rapidly, not over millions of years. How else can we explain the massive dinosaur graveyard where 10,000 adult *Maiasaura* were found buried in mud without a single young dinosaur mixed in with the entire herd? Every single dinosaur in the area was at least nine feet long. It sounds like the adult dinosaurs were stampeding away from the imminent danger of raging floodwaters; their young could not keep up and became engulfed in some lower part of the remaining land of the peninsula.

These evidences surely point to the rapid and widespread catastrophe of the flood... But do you know what is even more convincing? Soft tissues found in dinosaur bones. Over just the last few decades scientists have been discovering astonishing occurrences of soft tissues in dinosaur bones. We're talking about over 50 peer-reviewed, secular science journals that have now reported 16 bio-organic materials found in dinosaur bones and other fossils from similar strata. They're finding blood cells, blood vessels, connective tissue and even collagen, which has a maximum shelf life of just tens of

thousands of years, with some stretching it out to a maximum of 900,000 years. Either way—with a maximum shelf life of less than one million years, what's collagen doing in dinosaur bones that are supposedly over 66 million years old?

Dinosaurs after the Flood—there be Dragons!

The Biblical Creation position holds that dinosaurs were aboard the Ark just thousands of years ago (only about 80 “kinds” of dinosaurs at the *family* level were needed on the Ark). If this was the case, we would expect that many of the dinosaurs went extinct quickly after the Flood because they were hunted into extinction and had difficulties surviving in the post-flood world. Several varieties, however, would likely have lived through the Middle Ages. Given the historical accounts of dragon-like creatures living with man, it’s most likely that some of the theropod and pterosaur kinds were among those that survived the longest.

Ancient drawings and carvings of dinosaur-like creatures exist in almost every continent around the world. Dragon legends also exist in almost every culture around the world. Many of these describe creatures that are similar in size, shape, and features.

While many of these are likely fictional stories or exaggerations, it’s quite surprising how many of these “dragon tales” are told by credible historians—historians that we rely upon today for understanding the past. Why do so many people today accept historical facts from these famous historians, but readily dismiss their accounts of dragon/dinosaur creatures living with man? Are we selectively choosing only the parts of their accounts that fit our worldviews?

For example, what do Marco Polo, Alexander the Great, Cassius Dio, Athanasius Kircher, Pliny the Elder, and Herodotus all have in common? First, they’re all historians that are regarded as credible and are relied upon today. Second, they *all* wrote about dragons living with man! Let’s look at each one of these historians and their mention of dragons.

In 1271 Marco Polo authored the *Travels of Marco Polo*. Marco was the first European (on record) to visit China and Asia and record it in *detail*. His work and maps popularized the 4,000-mile “Silk Road” trade route. Maps of Asia were

based on his descriptions until the sixteenth century, and Christopher Columbus relied on these maps for finding a sea route to China (1492).

Marco recorded dragons living with man. Regarding the Province named Karajan (China), he wrote, “Here are found snakes and huge serpents, ten paces in length and ten spans in girth (that is, 50 feet long and 100 inches [about eight feet] in girth). At the fore part, near the head, they have two short legs, each with three claws, as well as eyes larger than a loaf and very glaring. The jaws are wide enough to swallow a man, the teeth are large and sharp, and their whole appearance is so formidable that neither man, nor any kind of animal can approach them without terror. Others are of smaller size, being eight, six, or five paces long.”²³³ He continues by explaining how the “local citizens of the area hunted and killed the creatures.”

In 330 BC, Alexander the Great invaded India and brought back reports of seeing a great hissing dragon living in a cave, which people were worshipping as a god.²³⁴ Later Greek rulers supposedly brought dragons alive from Ethiopia.

The Roman historian Cassius Dio (AD 155–236) described how a Roman army once killed a dragon. John of Damascus (AD 676–749), in his book *On Dragons and Ghosts* wrote: “One day, when Regulus, a Roman consul, was fighting against Carthage, a dragon suddenly crept up and settled behind the wall of the Roman army. The Romans killed it by order of Regulus, skinned it and sent the hide to the Roman senate. When the dragon’s hide, was measured by order of the senate, it happened to be, amazingly, 120 feet long, and the thickness was fitting to the length.”²³⁵

Athanasius Kircher (lived AD 1601–1680) was a German Jesuit Scholar who published 40 major works and taught at Roman College for over 40 years. In his chapter on dragons in *Mundus Subterraneus*, Kircher records: “Of winged dragons, dispute has only arisen between authors, most of whom declare them to be fanciful, but these authors are contradicted by histories and eyewitnesses. Winged dragons—

small, great, and greatest—have been produced in all times in every land.” These could well refer to pterosaurs alive after the Flood.

Pliny the Elder (lived from AD 23–79), a well-known Roman scholar and historian was the author of *Naturalis Historia* (“Pliny’s Natural History”). In this famous work, Pliny writes: “Africa produces elephants, but it is India that produces the largest, as well as the dragon.”

Herodotus was a famous Greek historian who lived between 484 and 425 BC. He was the first Greek writer who succeeded in writing a large-scale historical narrative that has survived the passage of time, which contributed to Herodotus being known as the “father of history.” Herodotus records: “Winged serpents are said to fly from Arabia at the beginning of spring, making for Egypt: but the ibis birds encounter the invaders in this pass and kill them...the serpents are like water snakes. Their wings are not feathered but very like the wings of a bat.”²³⁶

With these five historians laying the foundation, next we’ll build on this dragon-dinosaur phenomena by reviewing some of the additional evidences from around the world. First, let’s start with the big picture. There are *two* meta-level truths that emerge for honest researchers who have studied early dragon-dinosaur drawings, carvings, and figurines from around the world. The first is that there are *thousands* of them, and (in many cases) hundreds of examples within individual cultures that date from ancient (post-flood) times to the medieval era. The second truth is that the *similarities* of many of these both *within* and *between* cultures around the world is incredible!

By way of just a single example, consider the two ancient representations of dragons below.



Figure 58. Two Dragons from Across the World.²³⁷

The figure on the left is from the Julsrud collection that was discovered near the El Toro Mountain in Acambaro, Mexico. The figure to the right was found thousands of miles away in China (Tang Dynasty). How could cultures separated by thousands of miles depict an animal nearly the same way if they weren't each referencing a *real animal*? Were both artists just coincidentally creating features like dermal spikes, nasal passages on top of the mouth forward of the eyes, and a long tail? Or, were they possibly seeing similar creatures in their lifetimes?

If this was just a single instance, it would be only a ridiculous coincidence, not even worthy of mentioning here. But it's not—these similarities exist with dragons drawn and carved *all over the world*. Many have dermal spikes/crests (like shown above). Most have long tails. Most have fierce mouths, jaws, or teeth. Many have three-toed feet, characteristic of theropod dinosaurs.

A tour through ancient literature reveals thousands of dragon accounts. While many are likely fiction, the sheer *number* of them and the incredible *consistency* of the similar types of features indicates they existed. There are far too many dragon myths and legends for them *all* to be fakes, or figments of imagination.

For example, consider Bill Cooper's work, "The Early History of Man (Part 4): Living Dinosaurs from Anglo-Saxon and other Early Records."²³⁸ In this exhaustive historical work, Cooper summarizes some of the leading historical accounts of

dragon/dinosaur encounters in England from among a list of 81 recorded instances throughout English history.²³⁹

Table 3. Eighty-One (81) Locations in Britain Where Dinosaur Activity has been Reported or Remembered.

Aller, Somerset	Llyn Llion, Wales
Anwick, Lincolnshire	Llyn-y-Gader, Wales
Bamburgh, Northumberland	Llyn-yr-Afanc, Wales
Beckhole, North Yorkshire	Loch Awe, Scotland
Bedd-yr-Afanc, Wales	Loch Maree, Scotland
Ben Vair, Scotland	Loch Morar, Scotland
Bignor Hill, West Sussex	Loch Ness, Scotland
Bishop Auckland, Durham	Loch Rannoch, Scotland
Bisterne, Hampshire	Longwitton, Northumberland
Bren Pelham, Hertfordshire	Ludham, Norfolk
Brinsop, Hereford and Worcester	Lyminster, West Sussex
Bures, Suffolk	Manaton, Devon
Cadbury Castle, Devon	Money Hill, Northumberland
Carhampton, Somerset	Moston, Cheshire
Castle Carlton, Lincolnshire	Newcastle Emlyn, Wales
Castle Neroche, Somerset	Norton Fitzwarren, Hereford and Worcester
Challacombe, Devon	Nunnington, North Yorkshire
Churchstanton, Somerset	Old Field Barrows (nr Bromfield)
Cnoc-na-Cnoimh, Scotland	Shropshire
Crowcombe, Somerset	Penllin Castle, Wales
Dalry, Scotland	Penmark, Wales
Deerhurst, Gloucestershire	Penmynydd, Wales
Dol-y-Carrog, Wales	St Albans, Hertfordshire
Dragonhoard (nr Garsington), Oxfordshire	St Leonard's Forest, West Sussex
Drake Howe, North Yorkshire	St Osyth, Essex
Drakelow, Derbyshire	Saffron Waldon, Essex
Drakelowe, Worcestershire	Sexhow, North Yorkshire
Filey Brigg, North Yorkshire	Shervage Wood, Hereford and Worcester
Handale Priory, North Yorkshire	Slingsby, North Yorkshire
Henham, Essex	Sockburn, Durham
Hornden, Essex	Stinchcombe, Gloucestershire
Kellington, North Yorkshire	Strathmartin, Scotland
Kilve, Somerset	Walmsgate, Lincolnshire
Kingston St Mary, Somerset	Wantley, South Yorkshire
Lambton Castle, Durham	Well, North Yorkshire
Linton, Scotland	Wherwell, Hampshire
Little Cornard, Suffolk	Whitehorse Hill, Oxfordshire
Llandeilo Graban, Wales	Winkleigh, Devon
Llanraeadr-ym-Mochnant, Wales	Wiston, Wales
Llyn Bartog, Wales	Wormelow Tump, Hereford and Worcester
Llyn Cynwch (nr Dolgellau), Wales	Wormingford, Essex

Cooper gives numerous written accounts of these dragon encounters, with some being more believable than others. Remember, some of these accounts *are* in fact myths. Some may also be encounters with dragon-like creatures, such as alligators, large lizards, or giant snakes. However, too many of them have descriptions that only fit massive reptilian beasts that terrified local populations.

While we'll never be able to determine the percentage of the medieval population that interpreted these stories literally, consider that even the highly-educated Church Fathers wrote and taught about the real existence of dragon/dinosaur like creatures (including St. Photius the Great, St. Athanasius the Great, St. John Damascene, St. Ephraim the Syrian, St. Basil the Great, St. John Chrysostom, and others). This brief compilation is provided to survey the widespread belief in “living dragons” throughout medieval times.

Let's explore some of these next, beginning with a compilation of dragon accounts found ancient texts and many drawn from the Orthodox Saints.²⁴⁰ Then we'll review others from around the world. Remember, some of the dragon-like creatures in these stories, paintings, and drawings are likely allegorical—symbolizing evil in its various forms—however, many have a basis in historical creatures.

The Book of Daniel and Bel the Dragon

Let's start with the Prophet Daniel story of Bel and the Dragon from chapter 14 of the Septuagint Greek version of the Book of Daniel and is accepted as scripture by some Christians, though not in Jewish tradition. Daniel slays the dragon by baking pitch, fat, and hair (trichas) to make cakes (mazas, barley cakes, but translated “lumps”) that cause the dragon to burst open upon consumption:

Now in that place there was a great dragon,
which the Babylonians revered. The king said to
Daniel, ‘You cannot deny that this is a living

god; so worship him.’ Daniel said, ‘I worship the Lord my God, for he is the living God. But give me permission, O king, and I will kill the dragon without sword or club.’ The king said, ‘I give you permission.’ Then Daniel took pitch, fat, and hair, and boiled them together and made cakes, which he fed to the dragon. The dragon ate them, and burst open. Then Daniel said, ‘See what you have been worshipping!’ When the Babylonians heard about it, they were very indignant and conspired against the king, saying, ‘The king has become a Jew; he has destroyed Bel, and killed the dragon, and slaughtered the priests.’ (Daniel 14:23–28, NRSV)

St. Beatus Hermit of Thun

St. Beatus Hermit of Thun was an Apostle of Switzerland in the Second Century and was an allegedly a priest in Rome by St. Peter the Apostle. Beatus made his home (or “hermitage”) in the mountains above Lake Thun in a place now known after his name, the St. Beatus Caves. Tradition states that he fought and slayed a dragon near this cave. Isn’t it interesting that many dragons supposedly lived in caves? This seems to make sense, given the increasing population of humans around the world, these dark tunnels into the earth provide perfect hiding places and shelters.



Figure 59. St. Beatus Caves (Switzerland).²⁴¹

St. Crescentinus of Umbria

St. Crescentinus of Umbria, Italy (around AD 303) was a Patron saint of Urbino. Crescentinus was a Roman soldier who converted to Christianity and fled to Umbria to escape the persecutions of Diocletian. He found refuge at Thifernum Tiberinum (the present day Citta di Castello) and was able to successfully evangelize the region after slaying a dragon in the area.



Figure 60. Saint Crescentinus Kills the Dragon (Marco Benefial 1747–49). Cathedral of Città di Castello (notice he’s standing on the dragon).²⁴²

St. Mercurialis of Forlì

St. Mercurialis was the First Bishop of Forlì (AD 406). The cathedral of Forlì is named after him. His legend states that he saved the city by killing a dragon—a dragon so fierce that many knights died trying to slay it. Many depictions in church history reflect him in this act. The legend states that he wrapped the dragon in his pastoral robe and tossed it into a deep well in a place today called Bussecchio.



Figure 61. St. Mercurialis Kills the Dragon (Painting, 1598).²⁴³

Saint Hermentaire

Saint Hermentaire (Fifth Century) was also made famous for a dragon battle. Draguignan is a commune in the Var department in the Provence-Alpes-Côte d'Azur region, in southeastern France. Witnesses reported an epic battle between Saint Hermentaire, later called “protector” of the city of Draguignan, and a dragon terrorizing the population in the area. The city is named after the Latin name “Draco/Draconem” (dragon).



Figure 62. Statue of Saint-Hermentaire Slaying the Dragon, Church of Saint-Michel in Draguignan (note dragon at feet).²⁴⁴

Chinese History

No culture or region on earth has more stories (both oral and written), carvings, paintings, and sculptures about dinosaurs than the Chinese. Literally hundreds of books have been written about Chinese dragons. By way of just a single example, Figure 63 shows a 2,000 year-old sculpture which looks remarkably like a theropod dinosaur, complete with spines along its back, clawed short “hands,” and a long tail.



Figure 63. Chinese Dragon Bronze Sculpture (a version nearly identical to this one is on display at the Glendive Dinosaur and Fossil Museum in Glendive, Montana) (Han Dynasty, 206 BC – 220 AD).

Even the traditional Chinese New Year’s celebration draws from an ancient story about a monster called Nian, a creature that was half dragon and half lion. One of the reasons the Chinese today celebrate their dragon-themed New Year by exploding firecrackers and with red-colored banners is because the ancient villagers would drive off Nian the dragon with loud noises and bright red decorations.²⁴⁵ Chinese history also includes stories of families raising dragons for the medicinal use of their blood and selling their valuable eggs.²⁴⁶

When visiting China, historian Marco Polo recorded that the Chinese villagers would kill dragons by burying large “wooden stakes tipped with sharp iron spikes, which they cover with sand.”²⁴⁷ While much of the Chinese dragon artwork and sculptures does in fact look very dinosaur-like, one of the consistent characteristics is typically a long, narrow (snake-like) trunk.

Mayans

The Mayans worshipped the “feathered serpent god” named Quetzalcoatl since the first century BC. The Genesis Park²⁴⁸ website that catalogues many dragon-dinosaur legends states:

The widespread belief in the winged serpent, (also present in the Aztec culture), has led some scholars to speculate if it might have been based upon a real animal in the ancient Americas. “An ancient Mayan relief sculpture of a peculiar bird with reptilian characteristics has been discovered in Totonacapan, in northeastern section of Veracruz, Mexico. José Diaz-Bolio, a Mexican archaeologist-journalist responsible for the discovery, says there is evidence that the serpent-bird sculpture, located in the ruins of Tajín, is not merely the product of Mayan flights of fancy, but a realistic representation of an animal that lived during the period of the ancient Mayans – 1,000 to 5,000 years ago. If indeed such serpent-birds were contemporary with the ancient Mayan culture, the relief sculpture represents a startling evolutionary oddity. Animals with such characteristics are believed to have disappeared 130 million years ago.”²⁴⁹

Below is an ancient ceramic figurine of a man with what seems to be a pterodactyloid pterosaur wrapped around his shoulders. This ceramic figurine has an uncanny resemblance of a pterosaur, including the head crest, the large eye, the bat-like, leathery wings, and the claws—all of which are very consistent with the remains we have from these creatures in the fossil record.



Figure 64. A Mayan hunter with what looks like a Pterodactyl around his shoulders.²⁵⁰

Stegosaurus Artwork at Cambodia’s Angkor Wat Temple

Carvings at Cambodia’s Angkor Wat temple, Ta Prohm, appear to depict a Stegosaur dinosaur (see Figure 66).²⁵¹ Though controversial, researchers have critically examined the Ta Prohm artwork and have satisfied the objections of critics. They’ve also discovered a second stegosaurus carving in the portico of the temple, resolving any doubt about the first one

found. This provides more evidence that some dinosaurs were likely still living and known at the time of the temple construction.



Figure 65. Ta Prohm Temple (built between AD 802 and 1431).²⁵²

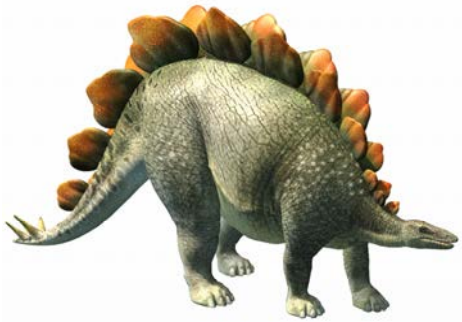


Figure 66. Artwork at Cambodia's Angkor Wat Temple.²⁵³



Figure 67. Second Stegosaur Recently Discovered at Temple.

Dragon Hunted by Nine Hunters in Northern Peru

Vance Nelson journeyed deep into the Amazon jungle to document one of the most verified early dragon-dinosaur evidences to date. His trip is chronicled in a book titled, *Untold Secrets of Planet Earth: Amazon Expedition*. After Nelson and his team of scientists traveled 13 hours to reach the remote site, they were rewarded with a pictograph worth writing an entire book about: a dragon-dinosaur creature drawn with red pigment

on the inside of a cliff wall that looked *exactly* like a sauropod dinosaur surrounded by nine hunters with spears.



Figure 68. Courtesy Quirino Olivera Núñez, President of the Association for Scientific Research of the Peruvian Amazon.

One of the team members, Professor Ulysses (Director of the Regional Museum in Peru) stated that there were about ten archaeologists aware of the pictographs at this site, including the dragon-dinosaur one, and all affirmed the drawing's authenticity.

Two of the Archaeologists (Dr. Nunez and Dr. Alva) took samples of the red pigment used for drawing the pictograph (likely from the seeds of the Annatto tree, called the "lipstick tree") and sent them for dating by plasma oxidation and carbon 14 analysis. The results showed the pictograph was at least 3,200 years old. This timeline certainly fits the dispersion of dinosaurs from the Ark and humans from Babel shortly thereafter.

Ancient Rome: Nile Mosaic of Palestrina (First Century BC)

The Palestrina Mosaic or Nile Mosaic of Palestrina is a late Hellenistic floor mosaic showing the Nile from the Blue Nile to the Mediterranean. At about six meters wide by four meters high, it likely took thousands of hours to create in the First Century BC.

In one of its many hunting scenes, several hunters are shown surrounding a creature labeled in the Mosaic as a “Crocodile-Leopard.” This creature has a remarkable resemblance to an extinct reptile named a *Gorgonopsid* (meaning “gorgon face”), which is in the suborder of therapsids, or a *Inostrancevia* (the largest of the Gorgonopsid species). Whatever the artists were depicting, it certainly wasn’t a Crocodile turning its head backwards, along with legs and feet not resembling crocodiles in the least.



Figure 69. Palestrina Mosaic.



Figure 70. Palestrina Mosaic (close up).



Figure 71. Reconstruction of *Inostrancevia* (the largest of the Gorgonopsid species).²⁵⁴

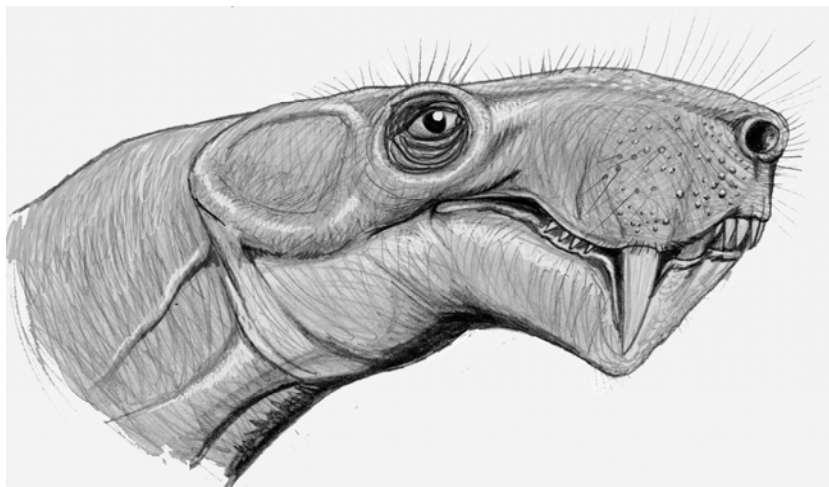


Figure 72. Visualized head of *Inostrancevia*, the largest species of the Gorgonopsids.²⁵⁵

We've reviewed only very few examples showing this dragon-dinosaur connection. Several more exist. The reader is encouraged to draw from the resources at www.answersingenesis.org for books that discuss this topic thoroughly. The book by Vance Nelson titled, *Untold Secrets of Planet Earth: Dire Dragons* provides the most compelling evidence that many dragon legends stem from actual dinosaurs.

Noah's Flood: How Did People and Animals Disperse Around the World after the Flood?

After the Flood, God commanded humanity to “increase in number and fill the earth” (Genesis 9:1). As rebellious humans, we did the opposite: “Then they said, ‘Come, let us build ourselves a city, with a tower that reaches to the heavens, so that we may make a name for ourselves and not be scattered over the face of the whole earth” (Genesis 11:4). About 100 years after the Flood, God responded to this disobedience by confusing our language and dispersing us from the Tower of Babel around the globe. This dispersal included between 78 and 100 people groups (and languages).²⁵⁶

Assuming the Babel dispersion is a true account, how did people spread across the globe when much of it is presently covered by water? The answer is quite simple: during the (single) Ice Age that began after the Flood and lasted for a few hundred years after, the ocean levels were between 100 and 140 meters lower²⁵⁷ than they are today. This made *land bridges* and *ice bridges* that melting ice has since submerged. Also, in many cases (e.g., Hawaii, North America, Tahiti, and other locations) both humans and animals arrived by boat. For more about this topic, we recommend Bill Cooper's book, *After the Flood: The Early Post-flood History of Europe Traced Back to Noah*²⁵⁸ and other resources by Answers in Genesis.²⁵⁹

How Did Vegetation Spread Rapidly after the Flood?

How did vegetation spread rapidly after the Flood so that all the varieties of animals could have enough food to survive? Two considerations help answer this question: (1) How could the plants grow fast enough for the thousands of animals getting off the Ark, reproducing rapidly, and needing food sources? (2) How could the seeds and plants disperse around the world after the world-wide Flood? Let's answer each of these questions.

How could the plants grow fast enough?

The most important part to consider when answering this question is that plants had 220 days to grow after the Flood. The Flood account reports that the water rose for 150 days before beginning to recede. They didn't leave the ark until 370 days after the Flood began.

This left up to 220 days (over seven months) for plants to regrow.²⁶⁰ Vegetation grows fast with the right conditions. Different varieties of grass take only 5–30 days to grow. Winter wheat takes about 7–8 months to reach maturity, and spring wheat is mature in only four months. Many vegetables grow to maturity in less than two months (including arugula, spinach, carrots, broccoli, radishes, onions, cucumbers, many types of beans and leafy vegetables, and even some root vegetables). Noah also took many seed varieties with him to plant in the new world. God told him, “You are to take every kind of food that is to be eaten and store it away as food for you and for them.” (Genesis 6:21)

How could the seeds and plants disperse around the world after the Flood?

God has engineered a *wide variety* of ways for distributing plant life. In addition to intentional planting, there are five main ways that seeds are dispersed from the parent plant: gravity, wind, ballistic, animals, and by water.

Gravity is perhaps the most obvious way: plants drop their ripe fruit (containing seed) below the plant, the seeds nest into the soil and grow around the radius of the parent plant. Apples, citrus, coconuts, and passionfruit are examples of gravity dispersal.

Dandelions are a well-known example of wind dispersal. A 2003 study at the University of Regensburg in Germany found that 99.5% of dandelion seeds land within 10 meters of their parent. Each seed is designed with a “parachute” structure that lifts the seed for typically a one-second flight.²⁶¹

A less common dispersal method is ballistic dispersal. This occurs where the seed is forcefully ejected by explosive dehiscence of the fruit. For example, the *Hura crepitans* plant is even called the dynamite tree due to the sound of the fruit exploding. The explosions are powerful enough to throw the seed up to 100 meters.²⁶²

Plants that rely on water dispersal have seeds that can travel for extremely long distances (especially those seeds that have hard shells and float). Water lilies and some palm trees do this.

Animal seed dispersion is perhaps the most fascinating and includes three primary methods. Some seeds have small hooks on the surface of a burr, so they attach themselves to animal fur for dispersion. The more obvious method that animals disperse seed is by eating the fruit and later excreting the undigestible seeds to form new plants—sometimes far away from the parent plant (e.g., blackberries, cherries, and apples). Many rodents (such as squirrels) and some birds disperse seeds by hoarding the seeds in hidden dens. This method alone is responsible for over 90% of seed dispersion in some tropical rain forests.²⁶³

When it comes to Noah's Flood specifically, Ginger Allen reminds us that seeds only had to endure water for a maximum of just over nine months. She wrote, "those that had hitched a ride on large mats of vegetation or on carcasses could be germinating while protected from the harsh conditions," and, "Most plants could have survived outside the Ark upon floating rafts of vegetation as seeds and as debris that could have gone a long way toward propagation of at least some plant life in the post-Flood world."²⁶⁴ Finally, Noah did not open the ark until the dove brought back a leaf. This way he knew the world was ready to support the animals.

Was Noah's Flood Only Local? Not Even a Chance

Some Christians believe the earth is 4.5 billion years old and that the Flood described in the book of Genesis (chapters 6–9) was a local event limited to the area where Noah lived, for example the Mesopotamian Valley region. Why? Primarily because of their perspectives on the fossil record and radiometric dating. They believe the fossil record was laid down over millions of years and know that a global flood would have disturbed those fossils. Yet, there is significant evidence that most of the fossil record was created by the Genesis Flood! By tracing genealogies in the Bible, we know the Flood occurred around ~4,400 years ago. Let's take a look at eight reasons for believing the Genesis Flood was a global, catastrophic event.

1. **Massive geologic layers:** The Genesis Flood laid down millions of cubic feet of sediment like sand and mud all over the globe. It soon hardened into rock. These layers contain most of the fossil record. Some of these massive layers, such as the Kaibab Upwarp in the Grand Canyon, are bent and even folded, proving they were laid down rapidly and then bent before hardening into rock. Otherwise they would have crumbled instead of bending.
2. **Fossil record:** The fossil record is world-wide and shows evidence of rapid burial. Specific examples include clam and oyster shells on mountain tops that were fossilized while still closed, fish buried in the process of eating other fish, and ichthyosaurs that were buried while giving birth. The Flood accounts for such widespread watery catastrophe.
3. **The Flood covered the highest mountains:** Scripture says that the “waters rose and increased greatly on the earth, and the ark floated on the

surface of the water. They rose greatly on the earth, and **all** the high mountains **under the entire heavens** were covered. The waters rose and covered the mountains to a depth of more than fifteen cubits [about 22 feet]” (Genesis 7:18–20, emphasis added). Of course, the writer refers to the mountains of the pre-Flood world, which were much shorter than today’s tallest mountains. Since water seeks its own level, it would be impossible for the water to cover the highest mountains and still be only a local event.

4. **Purpose of the Flood:** Due to widespread wickedness and violence, God decided to wipe out all of mankind, the land-dwelling animals and birds (except for those who were on the Ark). God said the earth “was corrupt and filled with violence” (Genesis 6:11–12), and that He was going to “bring floodwaters to destroy every creature on the face of the earth that has the breath of life in it” (Genesis 6:17). He also specifically mentioned people multiple times: “I will wipe from the face of the earth the human race I have created” (Genesis 6:7). Since it is highly improbable that all of the people on earth lived in the Mesopotamian Valley region, a local flood would not have accomplished God’s purpose.

5. **Use of the words “all” and “every” and “everything” in Genesis chapters 6–9:** The words “all,” “every” and “everything” are used 66 times in the Genesis Flood account. Many of these verses describe the creatures and people that perished during the flood. It is very clear by the context of these passages that God meant He was going to destroy all living creatures that live on land (except for those on the Ark). For example: “**Every** living thing that moved on land perished—birds, livestock,

wild animals, **all the creatures** that swarm over the earth, and **all mankind**. **Everything** on dry land that had the breath of life in its nostrils died. **Every** living thing on the face of the earth was **wiped out**; people and animals and the creatures that move along the ground and the birds were **wiped from the earth**. **Only Noah was left**, and those with him in the ark” (Genesis 7:21–23, emphasis added). If the text doesn’t mean what it says, then it means nothing. Jesus and Peter also referred to the universality of Noah’s Flood. Who are we (who were not even there) to say that they were wrong?

6. **The Ark: it took over 100 years to build the Ark.** If the Flood was just a local event, why would God tell Noah to build a ship over 400 feet long (Genesis 6:15) and then bring on board all the different kinds of animals including birds to be saved? (Genesis 6:19–21). If the flood was only a local event, there would be no need for an ark—Noah and the animals that God wanted to save would have had plenty of time to travel to a safer area.
7. **God’s covenant:** in Genesis 9:11, God made a promise, “Never again will all life be destroyed by the waters of a flood; never again will there be a flood to destroy the earth.” If the flood was local, then every time a local flood happens, God would break his promise.
8. **Jesus believed in a global flood:** “Just as it was in the days of Noah, so also will it be in the days of the Son of Man. People were eating, drinking, marrying and being given in marriage up to the day Noah entered the ark. Then the flood came and destroyed them all” (Luke 17:26–27). Peter also affirmed a worldwide Flood (2 Peter 3:6).

We recommend the following resources for more study:

- *Old Earth Creationism on Trial*, Tim Chaffey and Jason Lisle
- *The Global Flood; Unlocking Earth's Geologic History*, John D. Morris
- *The Fossil Record; Unearthing Nature's History of Life*, John D. Morris
- *The New Answers Book 3*, Andrew Snelling and Ken Ham. Available here: <https://answersingenesis.org/the-flood/global/was-the-flood-of-noah-global-or-local-in-extent/>

Helpful Resources

Genesis Apologetics

Mobile App:

Search for the free “Genesis Apologetics” App in the iTunes or Google Play stores.

Free Books and Videos:

5th–10th Grade Students: www.debunkevolution.com

11th grade-College: www.sevenmyths.com

YouTube Channel:

Channel Name: Genesis Apologetics

Dinosaurs:

www.genesisapologetics.com/dinosaurs

Theistic Evolution

www.genesisapologetics.com/theistic

“Lucy” (leading human evolution icon):

www.genesisapologetics.com/lucy

Answers in Genesis

www.answersingenesis.org

Institute for Creation Research

www.icr.org

Creation Ministries International

www.creation.com

Evolution: The Grand Experiment

www.thegrandexperiment.com

Creation Website Search Tool

www.searchcreation.org

Prayer of Salvation

You're not here by accident—God *loves* you and He *knows* who you are like no one else. His Word says:

Lord, You have searched me and known me.
You know my sitting down and my rising up;
you understand my thought afar off. You
comprehend my path and my lying down, and
are acquainted with all my ways. For there is not
a word on my tongue, but behold, O Lord, You
know it altogether. You have hedged me behind
and before, and laid Your hand upon me. Such
knowledge is too wonderful for me; It is high, I
cannot attain it. (Psalm 139:1–6)

God loves you with an everlasting love, and with a love that can cover all of your transgressions—all that you have ever done wrong. But you have to repent of those sins and trust the Lord Jesus Christ for forgiveness. Your past is in the past. He wants to give you a new future and new hope.

But starting this new journey requires a step—a step of faith. God has already reached out to you as far as He can. By giving His Son to die for your sins on the Cross, He's done everything He can to reach out to you. The next step is yours to take, and this step requires faith to receive His Son, Jesus, into your heart. It also requires repentance (turning away) from sin—a surrendered heart that is willing to reject a sinful lifestyle. Many believers have a much easier time leaving sinful lifestyles after they fully trust Jesus and nobody else and nothing else. Along with forgiveness, the Holy Spirit enters your life when you receive Jesus, and He will lead you into a different lifestyle and way—a way that will lead to blessing, joy, patient endurance under trials, and eternal life with Him.

If you are ready to receive Him, then consider four key Biblical truths.

1. Acknowledge that your sin separates you from God. Most simply, sin is our failure to measure up to God's holiness and His righteous standards. We sin by things we do, choices we make, attitudes we show, and thoughts we entertain. We also sin when we fail to do right things or even think right thoughts. The Bible also says that all people are sinners: "there is none righteous, not even one." No matter how good we try to be, none of us does right things all the time. The Bible is clear, "For all have sinned and come short of the glory of God" (Romans 3:23). Admit it. Agree with God on this one.
2. Our sins demand punishment—the punishment of death and separation from God. However, because of His great love, God sent His only Son Jesus to die for our sins: "God demonstrates His own love for us in this: While we were still sinners, Christ died for us" (Romans 5:8). For you to come to God, you have to get rid of your sin problem. But, in our own strength, not one of us can do this! You can't make yourself right with God by being a better person. Only God can rescue us from our sins. He is willing to do this, not because of anything you can offer Him, but **just because He loves you!** "He saved us, not because of righteous things we had done, but because of His mercy" (Titus 3:5).
3. It's only God's grace that allows you to come to Him—not your efforts to "clean up your life" or work your way to Heaven. You can't earn it. It's a free gift: "For it is by grace you have been saved, through faith—and this not from yourselves, it is the gift of God—not by works, so that no one can boast" (Ephesians 2:8–9). Will you accept this gift?
4. For you to come to God, the penalty for your sin must be paid. God's gift to you is His son, Jesus, who paid the debt for you when He died on the Cross. "For the wages of sin is death, but the gift of God is eternal life in Jesus

Christ our Lord” (Romans 6:23). God brought Jesus back from the dead. He provided the way for you to have a personal relationship with Him through Jesus. Trust Him. Pursue Him.

When we realize how deeply our sin grieves the heart of God and how desperately we need a Savior, we are ready to receive God’s offer of salvation. To admit we are sinners means turning away from our sin and selfishness and turning to follow Jesus. The Bible word for this is “repentance”—to change our thinking to acknowledge how grievous sin is, so our thinking is in line with God’s.

All that’s left for you to do is to accept the gift that Jesus is holding out for you right now: “If you confess with your mouth, ‘Jesus is Lord,’ and believe in your heart that God raised him from the dead, you will be saved. For it is with your heart that you believe and are justified, and it is with your mouth that you confess and are saved” (Romans 10:9–10). God says that if you believe in His son, Jesus, you can live forever with Him in glory: “For God so loved the world that He gave his one and only Son, that whoever believes in him shall not perish, but have eternal life” (John 3:16).

Are you ready to accept the gift of eternal life that Jesus is offering you right now? Let’s review what this commitment involves:

- I acknowledge I am a sinner in need of a Savior. I repent or turn away from my sin.
- I believe in my heart that God raised Jesus from the dead. I trust that Jesus paid the full penalty for my sins.
- I confess Jesus as my Lord and my God. I surrender control of my life to Jesus.
- I trust Jesus as my Savior forever. I accept that God has done for me what I could never do for myself when He forgives my sins.

If it is your sincere desire to receive Jesus into your heart as your personal Lord and Savior, then talk to God from your heart. Here's a suggested prayer:

Lord Jesus, I know that I am a sinner and I do not deserve eternal life. But, I believe You died and rose from the grave to make me a new creation and to prepare me to dwell in your presence forever. Jesus, come into my life, take control of my life, forgive my sins and save me. I am now placing my trust in You alone for my salvation and I accept your free gift of eternal life.

If you've prayed this prayer, it's important that you take these three next steps: First, go tell another Christian! Second, get plugged into a local church. Third, begin reading your Bible every day (we suggest starting with the book of John). Welcome to God's forever family!

Endnotes

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³ Dr. Andrew A. Snelling, “Noah’s Lost World,” (May 3, 2015) (www.answersingenesis.org/geology/plate-tectonics/noahs-lost-world/) (January 26, 2017).

⁴ *The New Defender Study Bible* (Nashville, TN: World Publishing, 2006) states, “9:13 my bow. The rainbow, requiring small water droplets in the air, could not form in the pre-diluvian world, where the high vapor canopy precluded rain (Genesis 2:5). After the Flood, the very fact that rainfall is now possible makes a worldwide rainstorm impossible, and the rainbow “in the cloud” thereby becomes a perpetual reminder of God’s grace, even in judgment.” Several other Biblical Creation resources hold this view.

⁵ Catherine Brahic, *New Scientist Daily News* (April 24, 2007). “Mystery prehistoric fossil verified as giant fungus”: (www.newscientist.com/article/dn11701-mystery-prehistoric-fossil-verified-as-giant-fungus/#.Uea7Qo2G18E) (January 26, 2017).

⁶ *Guinness World Book of Records 2014*, (The Jim Pattison Group, 2014): 27.

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⁸ Gregory S. Paul, *Dinosaurs of the Air: The Evolution and Loss of Flight in Dinosaurs and Birds* (Johns Hopkins University Press, 2002): 472. See also: M.P. Witton and M.B. Habib. “On the Size and Flight Diversity of Giant Pterosaurs, the Use of Birds as Pterosaur Analogues and Comments on Pterosaur Flightlessness.” *PLoS ONE*, 5(11) (2010). Other estimates place a range the weight range between 440 and 570 pounds: “That said, most mass estimates for the largest pterosaurs do converge, using multiple methods, around a 200–260kg (440–570lb) range at present, which represents decent confidence.” (Ella Davies, BBC Earth, May 9, 2016) and “The biggest beast that ever flew had wings longer than a bus.”

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www.sciencedaily.com/releases/2010/10/101029132924.htm (January 26, 2017). See also: Gauthier Chapelle & Lloyd S. Peck (May 1999). “Polar gigantism dictated by oxygen availability.” *Nature*. 399 (6732): 114–115. This article argues that higher oxygen supply (30–35%) may also have led to larger insects during the Carboniferous period: A.N. Nel, G. Fleck, R. Garrouste, and G. Gand, “The Odonoptera of the Late Permian Lodève Basin (Insecta).” *Journal of Iberian Geology* 34 (1) (2008): 115–122.

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²¹¹ Sarjeant & Currie, 2001.

²¹² Keller, Gerta. “Conclusions – Based on 30 Years of Research.” *Princeton University*. www.massexinction.princeton.edu/chicxulub/12-conclusions-%E2%80%93-based-30-years-research. Accessed September 22, 2020.

Keller stated, “After 30 years of chasing evidence in support of the Chicxulub impact as the cause for the KTB mass extinction we found little more than the iridium anomalies, which are usually very small (<0.5 ppb), except for rare locations in Italy (Gubbio), Denmark, Tunisia (El Kef), India (Meghalaya). They are never associated with undisputed Chicxulub impact ejecta (impact spherules), and frequently occur in multiple small Ir concentrations at clay layers above and/or below the KTB. Iridium concentrations such as these are increasingly being questioned as primary sources and re-interpreted as remobilization and re-concentration at redox layers (Colodner et al., 1992; Martin-Peinado and Rodriguez-Tovar, 2010; Miller et al., 2010; Gertsch et al., 2011). The Ir contribution from volcanism, formerly thought to be negligible, is also under study.”

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- ²¹³ Keller, G. et al. “More evidence that the Chicxulub impact predates the K/T mass extinction.” *Meteoritics & Planetary Science*. 39 (7) 2004: 1127–1144; Clarey, T. “Chicxulub Crater Theory Mostly Smoke.” Posted May 31, 2017. *Institute for Creation Research: Acts & Facts*. www.icr.org/article/chicxulub-crater-theory-mostly-smoke; Keller, G., Adatte, T., Baum, G., & Berner, Z. “Reply to ‘Chicxulub impact predates K-T boundary: New evidence from Brazos, Texas’ Comment by Schulte et al.” *Earth and Planetary Science Letters*, 269 (3–4) (2008): 621–629.
- ²¹⁴ Oard, Michael J. “The Extinction of the Dinosaurs.” Posted August 1, 1997. *Answers in Genesis*. www.answersingenesis.org/dinosaurs/extinction/the-extinction-of-the-dinosaurs/. (September 23, 2020); Officer, C. & Page, J. *The Great Dinosaur Extinction Controversy*. New York: Addison-Wesley Publishing Co., 1996, Ref. 76, pp. 110–129.
- ²¹⁵ Oard, 1997.
- ²¹⁶ “Closing in on the K-T Boundary of Dinosaur Extinction.” Posted July 16, 2011. *Answers in Genesis*. www.answersingenesis.org/dinosaurs/extinction/closing-in-on-k-t-boundary-dinosaur-extinction/. (September 23, 2020).
- ²¹⁷ Oard, M.J. “Is the demise of the dinosaurs by a Yucatán impact a myth?” *Journal of Creation* 18 (1) (2004): 6–8.
- ²¹⁸ Robert Sanders, “Did dinosaur-killing asteroid trigger largest lava flows on Earth?” Posted April 30, 2015. *Berkeley News*. www.news.berkeley.edu/2015/04/30/did-dinosaur-killing-asteroid-trigger-largest-lava-flows-on-earth/. (September 23, 2020); Rosen, Julia. “Down to Earth With: Paleontologist Gerta Keller.” *Earth Magazine*. www.earthmagazine.org/article/down-earth-paleontologist-gerta-keller. (September 23, 2020).
- ²¹⁹ MacPherson, Kitta. “Princeton geoscientist offers new evidence that meteorite did not wipe out dinosaurs.” Posted May 4, 2009. *Princeton*. www.princeton.edu/news/2009/05/04/princeton-geoscientist-offers-new-evidence-meteorite-did-not-wipe-out-dinosaurs?section=. (September 23, 2020); Keller, Gerta, Adatte, Thierry, Stinnesbeck, Wolfgang, Rebolledo-Vieyra, Mario, Urrutia Fucugauchi, Jaime, Kramar, Utz, Stüben, Doris. “Chicxulub impact predates the K-T boundary mass extinction.” *Proceedings of the National Academy of Sciences* 101 (11) (March 2004): 3753–3758.

Note: “Since the early 1990s the Chicxulub crater on Yucatan, Mexico, has been hailed as the smoking gun that proves the hypothesis that an asteroid killed the dinosaurs and caused the mass extinction of many other organisms at the Cretaceous-Tertiary (K-T) boundary 65 million years ago. Here, we report evidence from a previously uninvestigated core, Yaxcopoil-1, drilled within the Chicxulub crater, indicating that this impact predated the K-T boundary by approximately 300,000 years and thus did not cause the end-Cretaceous mass extinction as commonly believed. The evidence supporting a pre-K-T age was obtained from Yaxcopoil-1 based on five independent proxies, each with characteristic signals across the K-T transition: sedimentology, biostratigraphy, magnetostratigraphy, stable isotopes, and iridium. These data are consistent with earlier evidence for a late Maastrichtian age of the microtektite deposits in northeastern Mexico. See also: Thomas, Brian. “Strata Data Axes Asteroid Dinosaur Demise.” Posted May 14, 2009. *Institute for Creation Research*. www.icr.org/article/strata-data-axes-asteroid-dinosaur. Accessed September 23, 2020. Note Thomas states: “The new data she collected for her recent study bolsters Keller’s prior claim that the Chicxulub meteor did not annihilate the dinosaurs at the end of the Cretaceous period. The researchers determined that the mass extinction sediment lies on top of four to nine meters of sandstone material that was deposited on top of the Chicxulub crater. Keller told the National Science Foundation that these roughly 20 feet of ‘sediments were deposited at about two to three centimeters per thousand years after the impact,’ a deposition rate consistent with the concept that hundreds of thousands of years separated the events.”

²²⁰ Many secular geologists (including Keller) maintain that the Chicxulub impact predates the K-T (now called K-Pg) boundary by 120,000 years. See: Gradstein, F., Ogg J., and Smith, A. *A Geologic Time Scale*. Cambridge, UK: Cambridge University Press (2004) and Keller, G. “Impacts, volcanism and mass extinctions: random coincidence or cause & effect?” *Australian Journal of Earth Sciences* 52 (2005): 725–757.

²²¹ Wikipedia has a very useful page on the Tanis location: [www.en.wikipedia.org/wiki/Tanis_\(fossil_site\)](http://www.en.wikipedia.org/wiki/Tanis_(fossil_site)). September 23, 2020. For details about the site and images, see the leading article about the site, especially the *Supplement*: DePalma, Robert A., Smit, Jan, Burnham, David A., Kuiper, Klaudia, Manning, Phillip L., Oleinik, Anton, Larson, Peter, Maurrasse, Florentin J., Vellekoop, Johan, Richards, Mark A., Gurche, Loren, Alvarez, Walter. “A seismically induced onshore surge deposit at the KPg boundary, North Dakota.” *Proceedings of the National Academy of Sciences*, 116 (17) (April 2019): 8190–8199.

²²² Ibid.

²²³ Ibid (Supplement, p. 7).

²²⁴ The Tannis research reports (cited above) provide strong evidence for the tsunamis happening in correspondence with one or more asteroids during the Genesis Flood. Both layers were full of both fresh *and* salt water creatures as well as land creatures and plants. They believe this 10-plus meter high tsunami took about a day to travel the 1,900 miles from the Chicxulub crater to North Dakota, if it in fact traveled up the Western Interior Seaway. While Biblical Creationists have no problem with the Interior Seaway during a stage in the Flood process, it certainly wasn't the only flooding going on, with massive bonebeds of this size and much larger being laid down all across America and other parts of the world, happening at the same time. Secular geologists openly admit to a "Late Cretaceous Transgression" (see Bond, 1976) where catastrophic folding and buckling of the North American continent was necessary to deposit fossils today much higher than present sea levels could have done.

²²⁵ "10,000 Dinosaurs in One Meter of Mud." *Is Genesis History*.

www.isgenesishistory.com/10000-dinosaurs/. (September 23, 2020).

²²⁶ Snyder, K., McLain, M., Wood, J., Chadwick, A. "Over 13,000 elements from a single bonebed help elucidate disarticulation and transport of an *Edmontosaurus thanatocoenosis*." *PLoS ONE* 15 (5) (2020): e0233182.

²²⁷ Horner, J.R. & Gorman, J. *Digging Dinosaurs*. New York: Workman Publishing, 1988, 122–123.

²²⁸ Hoesch, W. A. & Austin, S. A. "Dinosaur National Monument: Jurassic Park or Jurassic Jumble?" *Acts & Facts*. 33 (4) 2004.

²²⁹ The idea has been around since the 19th Century with Huxley proposing this notion first. See: Pavid, Katie. "How dinosaurs evolved into birds." *Natural History Museum (UK)*. www.nhm.ac.uk/discover/how-dinosaurs-evolved-into-birds.html. (September 23, 2020).

²³⁰ Brocklehurst, N., Upchurch, P., Mannion, P.D., O'Connor, J. "The Completeness of the Fossil Record of Mesozoic Birds: Implications for Early Avian Evolution." *PLoS ONE* 7 (6) (2012): e39056. See also: Mitchell, Elizabeth. "Birds Buried with Dinos at K-T Boundary." Posted October 8, 2011. *Answers in Genesis*. <https://answersingenesis.org/fossils/fossil-record/birds-buried-with-dinos-k-t-boundary/>. (September 23, 2020).

²³¹ Werner, C. *Evolution Grand Experiment*, Kindle Location 3458–3459.

²³² Martin, A.J., Vickers-Rich, P., Rich, T.H. and Hall, M. "Oldest known avian footprints from Australia: Eumeralla Formation (Albian), Dinosaur Cove, Victoria." *Palaeontology*, 57 (2014): 7–19. Note specifically: "Moreover, although the tracks may belong to enantiornithine birds, their overall form and size are similar to those of ornithurines (Falk 2011), specifically birds belonging to the modern clade Ardeidae, such as egrets and herons (Elbroch and Marks 2001; Lockley et al. 2009)."

²³³ Marco Polo, *Travels of Marco Polo* (1961): 158–159.

²³⁴ Charles Gould, *Mythical Monsters*, W.H. Allen & Co., London, 1886, pp. 382–383.

²³⁵ See also: Kekaumenos, 638; John Zonaras, *Epitome Historiarum*, ed. L. Dindorf, II (Leipzig 1868) 209.

²³⁶ Herodotus, *Herodotus, With an English Translation* (A. D. Godley, ed. A. D. Godley) (Medford, MA: Harvard University Press, 1920) *Histories* 2:75.1-76.3.

²³⁷ See: Cyroptoville.com, Did Dragons Ever Exist? (October 22, 2013). www.visitcryptoville.com/2013/10/22/lure-of-the-dragon-lair/ (December 16, 2021) and Genesispark.com, Ancient Dinosaur Depictions, www.genesispark.com/exhibits/evidence/historical/ancient/dinosaur/ (December 16, 2021).

²³⁸ Creation Ex-Nihilo Magazine, Australia; and as Pamphlet No. 280 (Creation Science Movement, England).

²³⁹ Bill Cooper, “The Early History of Man - Part 4. Living Dinosaurs from Anglo-Saxon and other Early Records.”

(www.biblebelievers.org.au/nation09.htm). (December 16, 2021).

²⁴⁰ This section is summarized from: Scott Nevins, “The Dragon-Slayer Saints of the Eastern Orthodox Church (April 26, 2015). www.scottnevinssuicide.wordpress.com/2015/04/26/the-dragon-slayer-saints-of-the-eastern-orthodox-church/

²⁴¹ Interlaken Attractions, www.interlakentravel.com/dt_places/st-beatus-caves/ (December 16, 2021).

²⁴² See Wikipedia.org www.en.wikipedia.org/wiki/Crescentinus

²⁴³ Credit: Cigoli, san mercuriale uccide il drago, 1598 ca:

www.commons.wikimedia.org/wiki/File:Cigoli,_san_mercuriale_uccide_il_d_rago,_1598_ca._00.jpg

²⁴⁴ Credit: Exposition Dragon (Draguignan).

www.en.calameo.com/books/006150655746c120fdfa2

²⁴⁵ Barbara Laban, “Top 10 Chinese myths.” *The Guardian*. (February 8, 2021) (August 23, 2018).

²⁴⁶ DeVisser, Marinus Willem, *The Dragon in China & Japan*, (1969).

²⁴⁷ Marco Polo, p. 159.

²⁴⁸ “Ancient Pterosaur Depictions.” Genesis Park.

www.genesispark.com/exhibits/evidence/historical/ancient/pterosaur/ (December 17, 2021).

²⁴⁹ “Serpent-Bird of the Mayans,” *Science Digest* (Vol. 64, Nov., 1968): p. 1.

²⁵⁰ Credit: National Geographic (see Genesis Park:

www.genesispark.com/exhibits/evidence/historical/ancient/pterosaur/ (December 17, 2021).

²⁵¹ Woetzel, D., “The Stegosaur Engravings at Ta Prohm.” *Answers Research Journal* 10 (2017): 213–220.

²⁵² *Ibid.*

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- ²⁵³ Credit: Shutterstock.
- ²⁵⁴ Mario Lanzas (2019).
- ²⁵⁵ Credit: Wikipedia.org. (Creator: Dmitry Bogdanov: dmitrchel@mail.ru).
- ²⁵⁶ Genesis 10 provides a listing of most of these families. Since not all the family lines are listed in Genesis 10 and a few more are listed in Genesis 11, it's likely that between 78 and 100 language groups were involved.
- ²⁵⁷ Ibid, Australian Institute of Marine Science (2001) & Lambeck, et al., (2002).
- ²⁵⁸ Ibid, Cooper, 2018.
- ²⁵⁹ Paul F. Taylor, "Chapter 11: How Did Animals Spread All Over the World from Where the Ark Landed?" October 18, 2007; last featured February 17, 2014. Answers in Genesis: www.answersingenesis.org/animal-behavior/migration/how-did-animals-spread-from-where-ark-landed/ (October 24, 2018).
- ²⁶⁰ It should be noted that different types of vegetation grew back after the Flood based on soil conditions, the different rates of the receding floodwaters in various places, etc.
- ²⁶¹ Luis Villazon, "How far can dandelion seeds travel? Make a wish... a dandelion parachute can go further than you would think." www.sciencefocus.com/nature/how-far-can-dandelion-seeds-travel/ (November 5, 2018).
- ²⁶² Susan Feldkamp, *Modern Biology* (2006): 618.
- ²⁶³ H. F. Howe & J. Smallwood (1982). "Ecology of Seed Dispersal," *Annual Review of Ecology and Systematics* 13: 201–228.
- ²⁶⁴ Ginger Allen, "How Did Plants Survive and Disperse after the Flood?" (February 28, 2017). Answers in Genesis: www.answersingenesis.org/biology/plants/how-did-plants-survive-and-disperse-after-flood/