Answers4Seekers: Session #14A (semi-technical)

TOPIC: The Recent Global Flood & The Geologic Column

- 1. Overview of Topic
- 2. Definitions of Terms
- 3. Worldviews and Hierarchy of Evidence
- 4. Summary of 11 Evidences for a Recent Global Flood
- 5. Details of 11 Evidences for a Recent Global Flood
- 6. Overview of Catastrophic Plate Tectonics
- 7. The Geologic Column vs. the Rock Record
- 8. Radiometric Dating Assumptions & Weaknesses
- 9. Summary
- 10. Additional Resources

Answers4Seekers: Session #14A (semi-technical)

1) Overview of Topic

i. Overview:

Evidences are herein reviewed that lend strong support to the occurrence of a recent Global Flood. A catastrophic global flood would have covered the continents, buried plants and animals in rapid succession, and left thick sedimentary layers, which is what we see today. Come and explore!

2) Definitions of Terms:

a. Catastrophic: In geology, catastrophism is the theory that the Earth has at times been significantly shaped by sudden, powerful, and intermittent events, and some worldwide in scope.

b. Catastrophic Plate Tectonics (CPT): A geologic model where the earth is divided into a dozen large tectonic plates about 100 miles thick, but during the global flood episode the "fountains of the [ocean] deep burst open" and continental plate moment was highly accelerated.

c. Cavitation: The rapid formation and collapse of vapor pockets in a flowing liquid (especially water) in regions of very low pressure, and is a frequent cause of great

structural and rock damage. In general, Cavitation can start when water velocities exceed 27 mph. Cavitation video.

d. Closed-System: In the natural sciences, it is the concept that:
   i. 1) The natural world is all that exists,
   ii. 2) no super-natural forces exist or are involved, and
   iii. 3) nothing can leave or enter the closed system that is under review.

e. Diluvium: Widespread surficial deposits of sediments that cannot be explained by the historic action of rivers and seas. Diluvium was initially argued to have been deposited by the action of extraordinary floods of vast extent. A deposit of superficial loam, sand, gravel, stones, etc., caused by former action of flowing waters or the melting of glacial ice.

f. Geologic: The study of Earth and it's land; *Geo* = Earth, *Logic* = Study.

g. Geologic Column: An interpretation of Earth's "Rock Record" and fossils; currently based on presuppositional commitment to uniformitarianism, Naturalism, and Deep-time.

h. Hydraulics: The physical science of the static and dynamic behavior of fluids (including water) in an environment.

Answers4Seekers: Session #14A (semi-technical)

i. Index Fossils: Is a fossilized organism that is believed to have lived for only a short time geologically, but was spread over a large geographical area. From a uniformitarian and naturalistic point of view, Index Fossils are thought to help identify the development of past geologic "eras."

1. Ongoing research continues to expand "fossil ranges" in the geological column (Rock Record) which can affect the use of an index fossil. Additionally, different names are given to the same or a similar fossil found in strata of different ages, which could also affect the validity of an index fossil.

j. **Legends**: A legend has some basis in historical fact and tends to mention real people or events. A historical event can morph into a legend when the historic fact is exaggerated to the point that real people or events have taken on a romanticized, "larger than life" quality (like the city of Troy). In contrast, a **myth** is solely a type of symbolic storytelling that is never based on any historic fact.

k. Lithology: The lithology of a rock unit is a description of its physical characteristics, visible at outcrop, in hand or core samples, or with low magnification microscopy. Physical characteristics include color, texture, grain size, and composition.

l. Lithostratigraphy: Lithostratigraphy is a sub-discipline of stratigraphy, the geological science associated with the study of strata (horizontal rock layers).

m. Megasequences: Any of six major sedimentary sequences that were deposited across vast continental areas.
   i. Megasequences (in order): Sauk, Tippecanoe, Kaskaskia, Absaroka, Zuni, and Tejas.
   ii. A megasequence is a package of sediment layers bounded above and below by flat, eroded surfaces, called unconformities.
   iii. The layers of sediments show a distinct pattern with grains becoming smaller and smaller the higher up you go.
   iv. From a biblical perspective, Megasequences are thought to be the results of the catastrophic ebbs and flows of the worldwide oceans as they covered the earth during the Global flood.

n. Naturalism: A held belief that all that exists in the universe is matter, energy, and fixed material forces; also known as "materialism." In principle, it rejects the existence of anything non-material (i.e., soul or spirit) or any power, force, or entity that could supersede nature.

o. Open-System: Is a system which allows:
   i. 1) Things to enter-into and exit-out of the system,
   ii. 2) For the existence of both natural and supernatural components,
   iii. 3) The system to be affected by forces that supersede natural laws.

Answers4Seekers: Session #14A (semi-technical)

p. Overthrust Fault: A rock fault in which older rock moves up and over younger rock at a low angle.

q. Plate Tectonics: A model where the earth is divided into a dozen large plates about 100 miles thick. From a uniformitarian perspective, continental plate movement is very slow.

r. Rock Record Column: An empirical analysis of Earth's rock layers and fossils, based on identifiable physical properties, order, and regional or continental distribution.

s. Sedimentary Rock Layers: Sedimentary rock layers are primarily water laid, formed by the accumulation or deposition of mineral or organic particles at Earth's surface, and fixed by cementation. About 73% of the earth's land surface is covered by sedimentary rock layers, with the average thickness being around 8000 feet thick (about 1.5 miles) around the world, but can range from 0 feet to 50,000 feet thick. Fossils are found in sedimentary layers.

t. Strata: Plural of Stratum, A horizontal layer of rock material, especially one of several parallel layers arranged one on top of another. A bed or layer of sedimentary rock that is visually distinguishable from adjacent beds or layers. (singular, *Stratum*)

u. Stratigraphy: Stratigraphy is a branch of geology concerned with the study of rock layers and layering. It is primarily used in the study of sedimentary and layered volcanic rocks.

v. Tectonics: Tectonics (Greek: "*pertaining to building*"), are the processes that result in the structure and properties of Earth's crust through time.

w. The Geologic Column: A naturalistic view of the Earth's sedimentary, metamorphic, and igneous rock layers, set in terms of "Eras" that seek to proposed geo-chronical times, and is based on uniformitarian assumptions, a closed-system, and deep-time. Its primary focus is not the analysis of the properties of earth's rock layers, but an attempt to construct a history of life from an evolutionary and uniformitarian perspective.

x. The Global Flood: From a Biblical flood perspective, the global flood occurred approximately 5000 years ago, where the "fountains of the [ocean] deep burst open" and "floodgates of the sky were opened" for 40 days, which prevailed upon the earth for 150 days, completely covering and changing the surface of the earth, as a judgement from God for mankind's sin and violence. The waters eventually completely receded after one year. (Reference Genesis chapter 7&8.)

y. The Grand Staircase: A geologic section of earth's surface starting from the bottom of the Grand Canyon (northern Arizona) and continuing north into southern Utah to the Bryce

Canyon; exhibiting a total climb in elevation of around 15,000 feet; it shows about 3 miles of vertical stratigraphy rising over a distance of about 70 miles.

z. The Ice Age: From a biblical perspective, the Ice Age occurred after the Global flood due to excessive moisture in the air and the cooling of earth due to volcanic debris in the astrosphere (during the Flood Epic) that reduced the penetration of the sun's rays for a period of time. This Ice Age was recent.

aa. The Rock Record: An analytical view and interpretation of Earth's rock layers in terms of their physical properties and sequence (lithostratigraphy), apart from any worldview assumptions. Is a descriptive term for the portions of the Earth's crust that are open to human examination.

i. The Rock Record differs from the conventional Geologic Column model, since the Rock Record focuses on what is knowable from the world-wide rock layers, while the naturalistic Geologic Column seeks to construct a model and interpretation for the development of life on Earth based upon uniformitarian, evolutionary, and deep-time assumptions.

bb. The Great Unconformity: The erosion surface formed mostly on igneous and metamorphic rocks of the upper crust in the western United States. The contact point between rock units that do not conform to the geometry or fabric of their adjacent rock beds.

Answers4Seekers: Session #14A (semi-technical)

cc. Types of Earth's Rock Materials:

i. Basalt Rock: Basalt is an aphanitic (fine-grained material) extrusive igneous rock formed from the rapid cooling of low-viscosity lava rich in magnesium and iron exposed upon or very near the surface of Earth's surface. More than 90% of all volcanic rock on Earth is basalt. No fossils are known to be found in this rock type.

ii. Igneous Rock: Igneous rocks (magmatic rock) are formed through the cooling and solidification of magma or lava. The magma can be derived from partial melting of existing rocks in either earth's mantle or crust. Granite and basalt are examples of igneous rock. No fossils are known to be found in this rock type.

iii. Magma: Magma is the molten or semi-molten natural material from which all igneous rocks are formed. Magma is found beneath the surface of the Earth. No fossils are known to be found in this rock type.

iv. Metamorphic Rock: Metamorphic rocks arise from the transformation of existing rock [especially sedimentary rock] to new types of rock in a process called metamorphism. The original rock (called "protolith") is subjected to temperatures greater than 300°F and often elevated pressure of 100 megapascals or more, causing profound physical or chemical changes. During this process, the rock remains mostly in the solid state, but gradually recrystallizes to a new texture or mineral composition. The protolith may be an igneous, sedimentary, or existing metamorphic rock. Metamorphic rocks make up a large part of the Earth's crust and form 12% of the Earth's land surface. "Schist" is an example of a medium-grained metamorphic rock. No fossils (or almost no fossils) are found in this rock type.

v. Sedimentary Rock: Sedimentary rocks are primarily water laid rock layers that are formed by the accumulation or deposition of mineral or organic particles at Earth's surface, followed by cementation. The particles that form a sedimentary rock are called sediment, and may be composed of geological detritus (minerals) or biological detritus (organic matter). The geological detritus originated from weathering and erosion [including collisions and cavitation] of existing rocks, or from the solidification of molten lava blobs erupted by volcanoes. The geological detritus is transported to the place of deposition by water, wind, ice or mass movement, which are called agents of denudation. About 73% of the earth is covered with sedimentary rock, with thicknesses around the world ranging for 0 feet to 50,000 feet thick; the average thickness being around 8000 feet thick. All (or almost all) Fossils are found in sedimentary layers.

dd. Uniformitarianism: The theory that all geologic phenomena and processes may be explained as the result of existing natural forces having operated uniformly and slowly from the origin of the earth to the present time. That is, all natural processes have essentially remained at their same steady rate; it rejects the possibility of any occurrence of significant acceleration of natural processes or the possibility of significant catastrophic events in Earth's history.

Answers4Seekers: Session #14A (semi-technical)

3) Presuppositions and Hierarchy of Evidence

a. **Presuppositions**: These are our elementary assumptions about life that we develop from our personal experiences and preferences. They are our personal values, that by definition, cannot be verified by procedure in natural science, and which we protect to the highest degree and are our least negotiable values or beliefs.

b. Interpretations: Are conclusions we make about evidence as it is viewed in the light of our presuppositions**.**

c. Worldview Bias: Occurs when we subconsciously accept weaker evidence because it agrees with our worldview, but reject stronger evidence because it conflicts with our worldview. This may occur subconsciously.

d. Brief Review of Levels of Evidence:

i. Since Eye-witness historic records (see Session #6 – Domain of History) only go back to a maximum to 5100 years (and only 3900 years with calendar accuracy), every event in the world beyond that is pre-history and there must be delegated to the realm of assumptions and estimates. (See Session#2 for Review of Types of Evidence – click here.)

Answers4Seekers: Session #14A (semi-technical)

ii. Check List for the Veracity of a Historic Evidence:

#	Proposed Rules for determining Veracity of Past Events	Yes	No
1	Is one or more Living, Capable, and Reliable Eye-witness currently available who: a) observed the past event, b) recorded the past event, c) indexed the past event into its place in history, and d) communicated it to others?	[ ]	[ ]
2	Did one or more Historic, Capable, and Reliable Eye-witness observe the event, record the event, and communicated the event unto their then concurrent society, and which was accepted by them?	[ ]	[ ]
3	Was the historic event close in time and not far outside of recorded history?	[ ]	[ ]
4	Does the embraced model of estimating the past age of a proposed historic event have other independent (and non-associated) evidence models that estimate the same timeframe?	[ ]	[ ]
5	Are <u>many</u> assumptions used and required to be able to estimate the past date of the event?	[ ]	[ ]

For a full review of types of evidences, please refer to our past "Session #2, Hierarchy of Evidences."

Answers4Seekers: Session #14A (semi-technical)

4) Summary of Evidences that Support a Recent Global Flood:

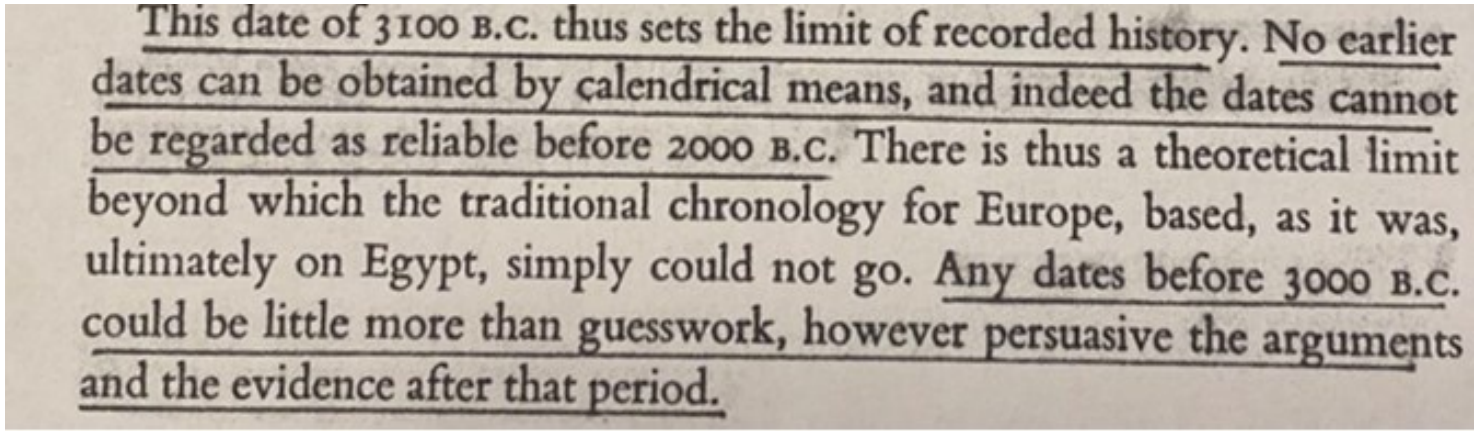
1. The Recorded history of the world only goes back to a maximum of 5100 years
2. Over 300 ancient Global Flood legends exist from every populated continent
3. Evidence of Ocean Marine Fossils (Sea Organisms) are found Worldwide on mountain tops
4. Evidence of Rapid Worldwide Burial of Plants and Animals
5. Evidence of Sedimentary Layers Rapidly Deposited & Spread Across huge Geographic Areas
6. Evidence of Water Cavitation shown recently to rapidly create huge geological features
7. Evidence of No Erosion seen Between Strata (no slow erosion seen).
8. Evidence of Many Sedimentary Strata Laid Down in Rapid Succession (folded)
9. Evidence of Water laid dinosaurs fossils that tested young by C14 and “blood cells”
10. Evidence of Fossil tracks in sedimentary layers laying beneath their fossil remains layer
11. Evidence of Fossils of simpler organisms were found above more complex organisms

Answers4Seekers: Session #14A (semi-technical)

5) 11 Evidences supporting a Recent Worldwide Flood

i. Evidence #1:

The recorded history of the world only goes back to a maximum of 5100 years (and only back to 3900 years with calendar accuracy, see Session-6 for the total duration of recorded history). Everything beyond that point is "pre-history" (prehistoric) and are based on our assumptions, our worldview, and our interpretation of the present-day evidences. With only 3900 to 5100 years of total recorded history for the world, this fits perfectly well within the timeframe of the biblical global flood stated to have occurred around 4500 to 6000 years ago. This evidence is what a recent global flood would be expected to produce.



This date of 3100 B.C. thus sets the limit of recorded history. No earlier dates can be obtained by calendrical means, and indeed the dates cannot be regarded as reliable before 2000 B.C. There is thus a theoretical limit beyond which the traditional chronology for Europe, based, as it was, ultimately on Egypt, simply could not go. Any dates before 3000 B.C. could be little more than guesswork, however persuasive the arguments and the evidence after that period.

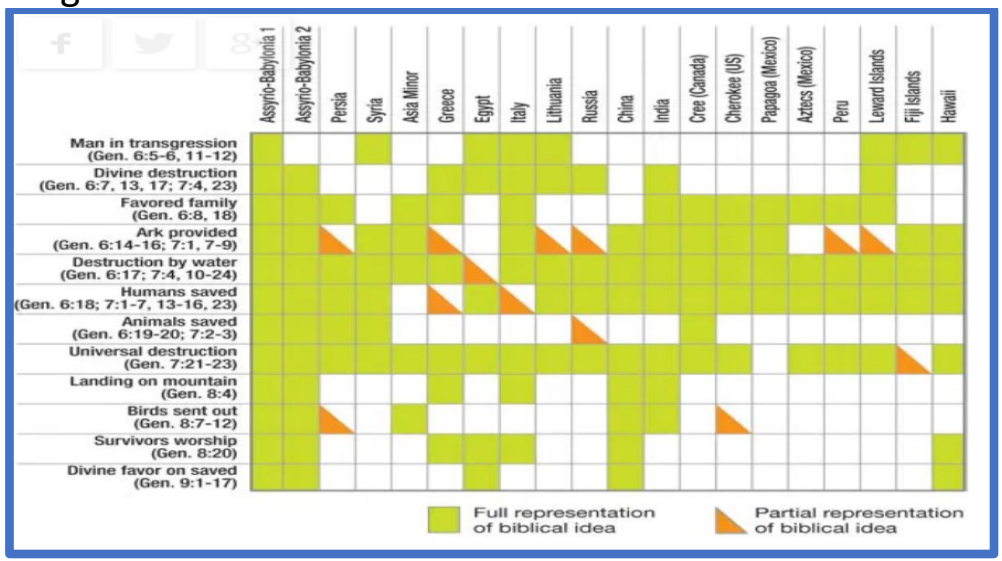
https://www.amazon.com/Before-civilization-radiocarbon-revolution-prehistoric/dp/0394481933?ref_=ast_author_dp, (page 28)

Answers4Seekers: Session #14A (semi-technical)

ii. Evidence #2:

Over 300 ancient Global Flood legends exist, and these exist from every populated continent on earth. Legends are created when a historic fact is over time mixed with some degree of exaggeration; but legends, unlike myths, always start with a kernel of historic fact. A wealth of ancient global flood legends exist, from Mesopotamia, China, North America, South America, Asia, Australia, and Europe. This only makes sense if all people groups descended from family that experienced a global Flood. This evidence is what a global flood would be expected to produce.

1. Worldwide Flood Legend Chart:



https://answersingenesis.org/the-flood/flood-legends/flood-legends/

Answers4Seekers: Session #14A (semi-technical)

2. Biblical Account Flood account differs greatly from the Babylonian Gilgamesh Epic Account. The Biblical account is feasible, while Gilgamesh account isn't.

a. Gilgamesh vs. Genesis

Gilgamesh	Genesis
1. Polytheistic: gods at loggerheads with each other.	1. Monotheistic: one sovereign God in control of all.
2. The flood is decided on by a council of the gods, but Ea dissents.	2. The one God determines on a flood.
3. Ea, acting alone, warns Ut-napishtim in a dream: trickery is involved.	3. God sees Noah as righteous and offers a way of escape.
4. Reason for flood obscure, except that man's noise was irritating the gods (In ***Atrahasis*** this is the reason).	4. Reason for flood is divine judgment for human sin and violence.
5. Boat is a cube of 120 cu per side, with 7 decks, an impossibly unstable configuration!	5. Boat is a barge (tēbah), 300 x 50 x 30 cu.—a very stable construction ratio.
6. Flood due to storm and rain.	6. Flood due partly to rain, partly to earth upheavals, and water within.
7. Flood lasts for 7 days and nights; then another 7 resting on Mt Nimush until he disembarks.	7. Flood lasts in all for more than a year.
8. Boat lands on Mt Nimush[13] (in the Kurdish mountains).	8. Ark lands among "the mountains of Ararat" (i.e. in Eastern Armenia).
9. Ut-napishtim sends out a dove, swallow, and a raven.	9. Noah sends out a raven, then doves on three occasions at 7-day intervals.
10. Entry into and emergence from the boat at his own discretion.	10. Both entry into and emergence from the ark at divine command.
11. While most of the gods "gather like flies" over the sacrifice, Enlil is angry. Ninurta then appeases Enlil.	11. Noah offers sacrifice of thanksgiving and receives a divine covenant.
12. Enlil grants to Ut-napishtim eternal life.	12. Genesis is not at all about seeking immortality.

https://creation.com/gilgamesh-and-noahs-flood-part-1
https://uruk-warka.dk/Gilgamish/The%20Epic%20of%20Gilgamesh.pdf

3. **Additional Global Flood Legends Resources**
   a. https://www.diffen.com/difference/Legend_vs_Myth
   b. https://www.amazon.com/Echoes-Ararat-Collection-Legends-America/dp/1683442717
   c. https://www.amazon.com/deluge-story-stone-history-geology/dp/B0006D30YO (pgs 170 to 190)
   d. https://answersresearchjournal.org/mesopotamian-deluge-accounts/
   e. https://creation.com/many-flood-legends
   f. https://creation.com/gilgamesh-and-noahs-flood-part-1
   g. https://creation.com/gilgamesh-and-noahs-flood-part-2
   h. https://answersingenesis.org/answers/magazine/v11-n4/bible-culture/worldwide-flood-legends/
   i. https://answersingenesis.org/the-flood/flood-legends/flood-legends/
   j. https://creation.com/en/videos/evidence-for-the-global-flood-of-noah-creation-magazine-live-8-03

iii. **Evidence #3:**

Ocean Marine Fossils (Sea Creature Fossils) are found Worldwide on land and on the tops of very high mountains, including Mt. Everest.

1. Neither Creationists nor Materialists believe that the sea level rose over the present height of Mt. Everest (29,032 feet), but both acknowledge that in the relative recent past (based on their timeline), ocean waters covered the area of Mt. Everest and other mountains leaving marine fossils, and after which Earth's mountain significantly rose, thru "catastrophic plate tectonics" for the Creationists or "uniformitarian plate tectonics" for the Materialist. Fossils on top of high mountains is evidence of what would be completely expected by a global flood, but is very unexpected from the materialist & uniformitarian point of view.

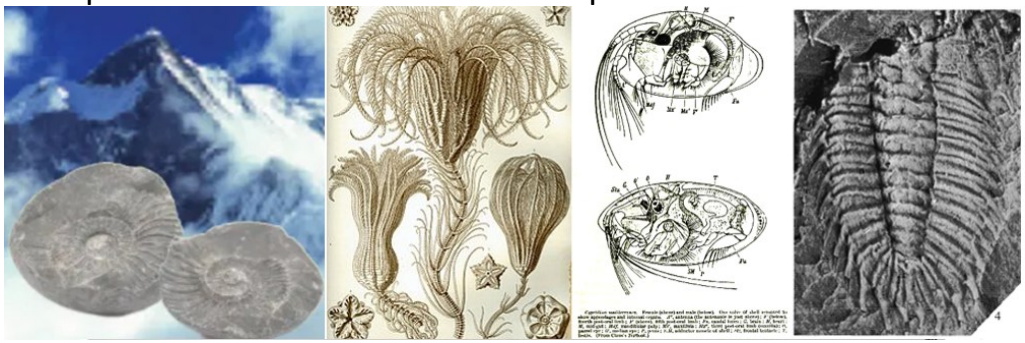
2. On every continent we find fossils of sea creatures in rock layers that today are high above sea level. For example, most of the rock layers in the walls of the Grand Canyon contain marine fossils. This

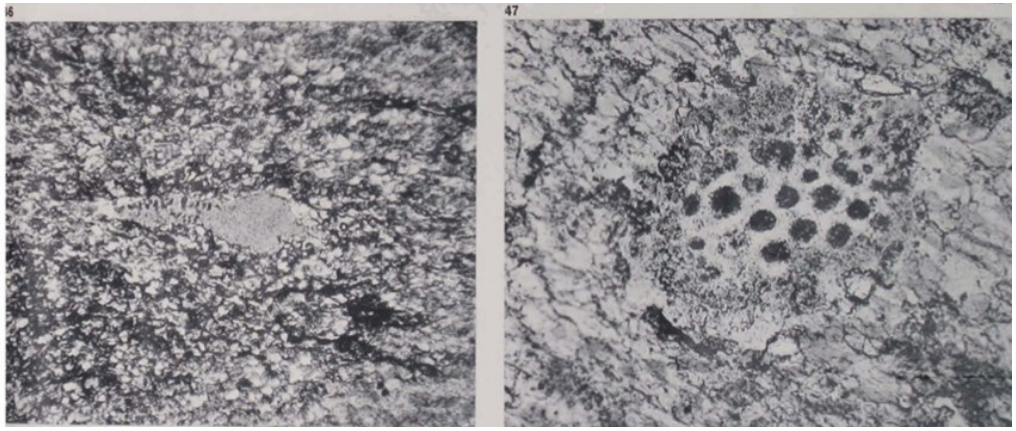
includes the Kaibab Limestone at the top of the strata sequence and exposed at the rim of the canyon, which today is 7,000–8,000 feet above sea level. The best example is the Redwall Limestone, which commonly contains fossil brachiopods (a type of clam), corals, bryozoans (lace corals), crinoids (sea-lilies), bivalves (other types of clams), gastropods (marine snails), trilobites, cephalopods, and even fish teeth. These marine fossils are found haphazardly preserved in this limestone bed. Thus, these marine creatures appear catastrophically destroyed and buried by the deposition of this lime sediment layer. For a dead organism to leave a fossil, the process of burying and encasing must occur fast to avoid deterioration or being consumed by scavengers.

3. Fossil ammonites (coiled marine gastropods) are also found in limestone beds high in the Himalayas, reaching up to 30,000 feet above sea level. All geologists agree that these marine fossils must have been buried in these limestone beds when the latter were deposited by ocean waters. So how did these marine limestone beds get to be high up in the Himalayas? There is only one possible explanation—the ocean waters at some time in the past flooded over the continents. Could the continents have then sunk below today's sea level, so that the ocean waters flooded over them? No. Because the continents are made up of rocks that are less dense (lighter) than both the ocean floor rocks and the mantle rocks beneath the continents. The continents, in fact, have an automatic tendency to rise, and thus "float" on the mantle rocks beneath, well above the level of the ocean floor rocks. This is why the continents today have such high elevations compared to the deep ocean floor, and why the ocean basins can accommodate so much water. Rather, the sea level had to rise, so that the ocean waters then flooded up onto, and over, the continents.

Answers4Seekers: Session #14A (semi-technical)

4. Some examples of marine fossils found on top of Mt. Everest:





5. Resources:
   - 1964, GEOLOGY OF THE HIMALAYAS, REGIONAL GEOLOGY SERIES edited by L. U. DE SITTER, page 164 & Photos 46,47
   - 1997, Himalayan Cambrian Trilobites, Special Papers in Palaeontology, (pages 1-113)
   - 2002, Exploring Earth, Davidson, page 299
   - 2005, Geology of the summit limestone of Mount Qomolangma (Mt. Everest) – Wiley Online
   - 2010, High and Dry Sea Creatures, AIG

iv. **Evidence #4:**

1. **Evidence of Rapid Worldwide Burial of Plants and Animals. This is evidence of what a global flood would be expected to produce.**

2. Countless billions of plant and animal fossils are found in extensive "graveyards" where they had to be buried rapidly on a massive scale. Often the fine details of the creatures are exquisitely preserved.

3. Fossil nautiloids found in the Grand Canyon's Redwall Limestone were buried rapidly. For example, billions of straight-shelled, chambered nautiloids are found fossilized with other marine creatures in a 7 feet thick layer within the Redwall Limestone of Grand Canyon. This fossil graveyard stretches for 180 miles across northern Arizona and into southern Nevada, covering an area of at least 10,500 square miles. These squid-like fossils are all different sizes, from small, young nautiloids to their bigger, older relatives. To form such a vast fossil graveyard required 24 cubic miles of lime sand and silt, flowing in a thick-soup-like slurry at more than 16 feet per second to catastrophically overwhelm and bury this huge, living population of nautiloids.

4. Hundreds of thousands of marine creatures were buried with amphibians, spiders, scorpions, millipedes, insects, and reptiles in a fossil graveyard at Montceau-les-Mines, France.

5. At Florissant, Colorado, a wide variety of insects, freshwater mollusks, fish, birds, and several hundred plant species (including nuts and blossoms) are buried together. Bees and birds have to be buried rapidly in order to be so well preserved.

6. Alligator, fish, including sunfish, deep sea bass, chubs, pickerel, herring, and gar-pike (3–7 feet long), birds, turtles, mammals, mollusks, crustaceans, many varieties of insects, and palm leaves (7–9 feet long) were buried together in the vast Green River Formation of Wyoming.

7. Notice in these examples how marine and land-dwelling creatures are found buried together. How could this have happened unless the ocean waters rose and swept over the continents in a global, catastrophic Flood?

8. Many trillions of microscopic marine creatures were catastrophically buried including large ammonites and other marine creatures in the chalk beds of Britain. These same beds also stretch right across Europe to the Middle East, as well as into the Midwest of the United States, forming a global-scale fossil graveyard.

9. More than seven trillion tons of vegetation is buried in the world's coal beds found across every continent, including Antarctica.

10. Such was the speed at which many creatures were buried and fossilized—under catastrophic flood conditions—that they were exquisitely preserved. There was no destruction of many fish, which were buried so rapidly, virtually alive, that even fine details of fins and eye sockets have been preserved. Many trilobites have been so

exquisitely preserved that even the compound lens systems in their eyes are still available for detailed study.

11. *Mawsonites spriggi*, when discovered, was identified as a fossilized jellyfish. It was found in a sandstone bed that covers more than 400 square miles of outback South Australia. Millions of such soft-bodied marine creatures are exquisitely preserved in this sandstone bed.

12. Consider what happens to soft-bodied creatures like jellyfish when washed up on a beach today. Because they consist only of soft "jelly," they melt in the sun and are also destroyed by waves crashing onto the beach. Based on this reality, the discoverer of these exquisitely preserved soft-bodied marine creatures concluded that all of them had to be buried in less than a day!

13. Some sea creatures were buried alive and fossilized so quickly that they were "caught in the act" of eating their last meal, or at the moment of giving birth to a baby! One minute a huge ichthyosaur had just given birth to her baby, then seconds later, without time to escape, mother and baby were buried and "snap frozen" in a catastrophic "avalanche" of lime mud. These are but a few examples of the many hundreds of fossil graveyards found all over the globe that are now well-documented in the geological literature. The countless billions of fossils in these graveyards, in many cases exquisitely preserved, testify to the rapid burial of plants and animals on a global scale in a watery cataclysm and its immediate aftermath.

14. *Note: Dinosaur fossil graveyards and human fossils will be addressed in detail in our next session, #14B.*

15. References and Resources:
    k. https://answersingenesis.org/fossils/fossil-record/the-worlds-a-graveyard/
    l. https://answersingenesis.org/the-flood/what-are-some-of-the-best-flood-evidences/
    m. https://answersingenesis.org/fossils/how-are-fossils-formed/do-fossils-show-signs-of-rapid-burial/

v. Evidence #5:

Rapidly Deposited Sediment Layers Spread Across Vast Areas. This evidence is what a global flood would be expected to produce.

1. We find rock layers that can be traced all the way across continents—even between continents—and physical features in those strata indicate they were deposited rapidly. For example, the Tapeats Sandstone and Redwall Limestone of Grand Canyon can be traced across the entire United States, up into Canada, and even across the Atlantic Ocean to England.

2. Consider the sedimentary rock layers exposed in the walls of the Grand Canyon. This sequence of layers is not unique to that region of the United States. For more than 50 years geologists have recognized that these strata belong to **Six Megasequences** (very thick, distinctive sequences of sedimentary rock layers separated by an unconformity layer beneath and above the Megasequence) that can be traced right across North America. The lowest of the Grand Canyon's sedimentary layers is the Tapeats Sandstone,

belonging to the Sauk Megasequence. It and its equivalents cover much of the United States. We can hardly imagine what forces were necessary to deposit such a vast, continent-wide series of deposits. Yet at the base of this sequence are huge boulders and sand beds deposited by storms. Both are evidence that massive forces deposited these layers rapidly and violently right across the entire United States.

3. The 6 Megasequences (major sedimentary sequences) are: 1) Sauk, 2) Tippecanoe, 3) Kaskaskia, 4) Absaroka, 5) Zuni, and 6) Tejas. These Megasequesnces compared the recent catastrophic global flood sequence to the uniformitarian geologic column sequence.

4. The Grand Canyon's Redwall Limestone belongs to the Kaskaskia Megasequence. The same limestones appear in many places across North America, as far as Tennessee and Pennsylvania. These limestones also appear in the exact same position in the strata sequences, and they have the exact same fossils and other features in them. What is even more remarkable is that the same Carboniferous limestone (calcium carbonate) beds also appear in England, again containing the same fossils and other features.

5. The Cretaceous (single-celled phytoplankton) chalk beds of southern England are well known because they appear as spectacular white cliffs (of Dover) along the coast. The same chalk beds can be traced westward across England and appear again in Northern Ireland. In the opposite direction, these same chalk beds can be traced across France, the Netherlands, Germany, Poland, southern Scandinavia, and other parts of Europe to Turkey, then to Israel and Egypt in the Middle East, and even as far as Kazakhstan.

Remarkably, the same chalk beds with the same fossils in them, and with the same distinctive strata above and below them, are also found in the Midwest United States, from Nebraska in the north to Texas in the south, and in the Perth Basin of Western Australia.

6. Consider another feature—coal beds. In the northern hemisphere, the Upper Carboniferous (Pennsylvanian) coal beds of the eastern and Midwest United States are the same coal beds, with the same plant fossils, as in Britain and Europe, stretching halfway around the globe, from Texas to the Donetz Basin north of the Caspian Sea in the former USSR.

7. In the southern hemisphere, the same Permian coal beds are found in Australia, Antarctica, India, South Africa, and even South America! These beds share the same kind of plant fossils across the region (but they are different from those in the Pennsylvanian coal beds).

8. Sediment layers that spread across vast continents are evidence that water covered the continents in the past. Even more dramatic are the fossil-bearing sediment layers that were deposited rapidly right across many or most of the continents at the same time. To catastrophically deposit such extensive sediment layers implies global flooding of the continents. And these are only a few examples.

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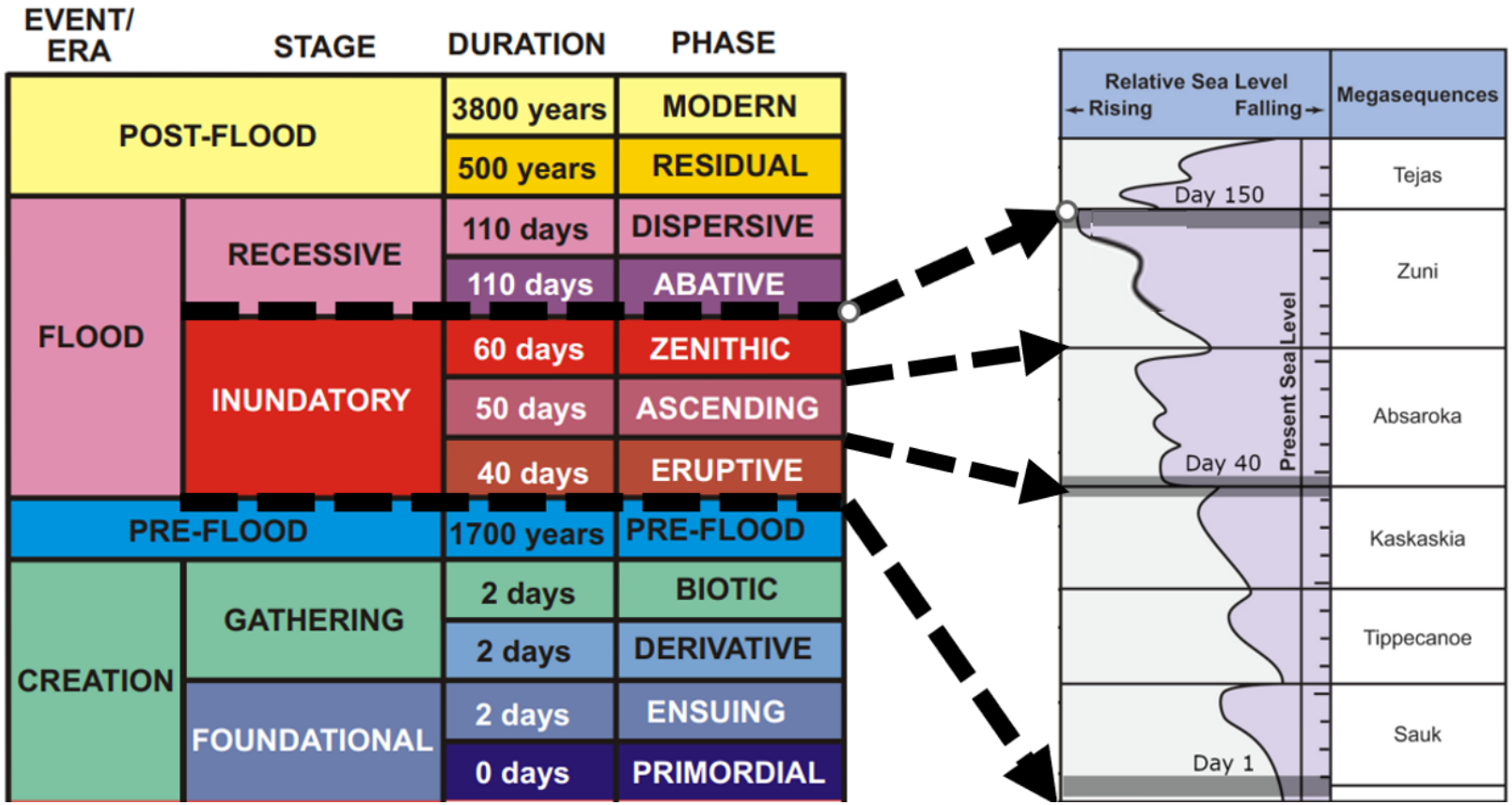
9. The "Biblical Global Flood Model" compared to the "Six Megasequences":



https://biblicalgeology.net/images/stories/resources/geological_model_1.pdf

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10. Examples of three of the six intercontinental Megasequesnces:

a. Sauk megasequence Sediment coverage:

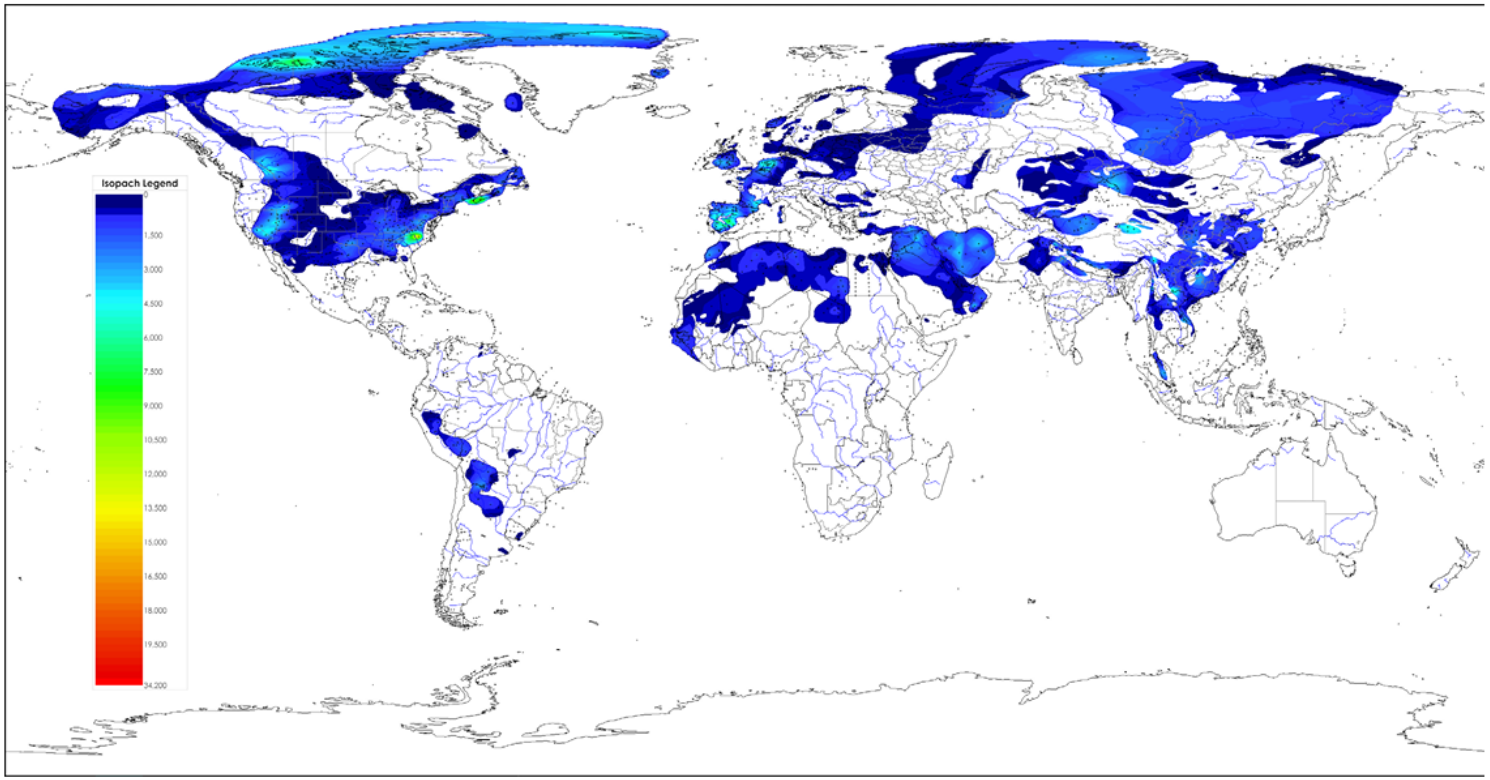

Figure 7. Sauk megasequence isopach (thickness) and extent map across North and South America, Europe, Africa and Asia. Measurements in meters.

https://digitalcommons.cedarville.edu/cgi/viewcontent.cgi?article=1470&context=icc_proceedings

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b. Kaskaskia megasequence Sediment coverage:

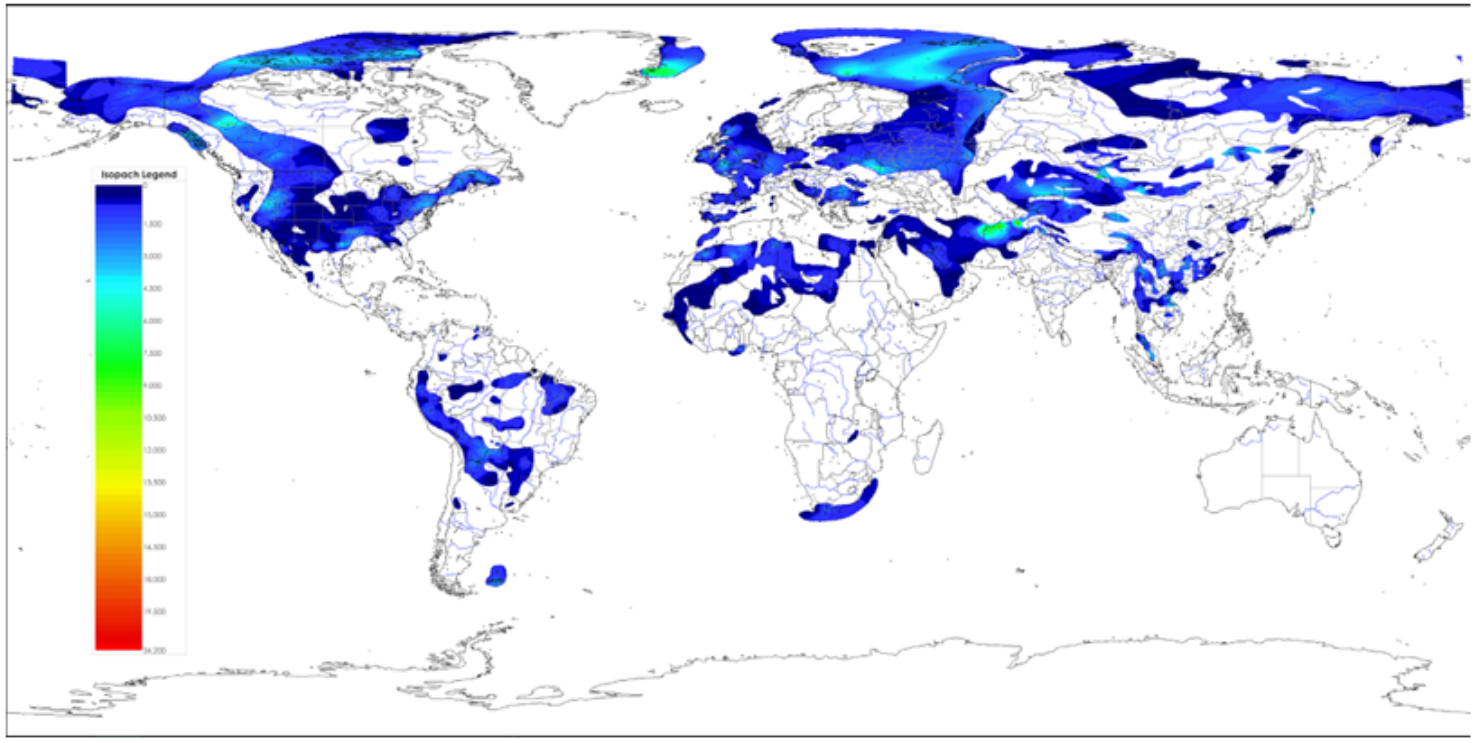


Figure 9. Kaskaskia megasequence isopach (thickness) and extent map across North and South America, Europe, Africa and Asia. Measurements in meters.

A Progressive Global Flood Model Confirmed by Rock Data Across Five Continents (cedarville.edu)

Answers4Seekers: Session #14A (semi-technical)

c. Tejas megasequence Sediment coverage:

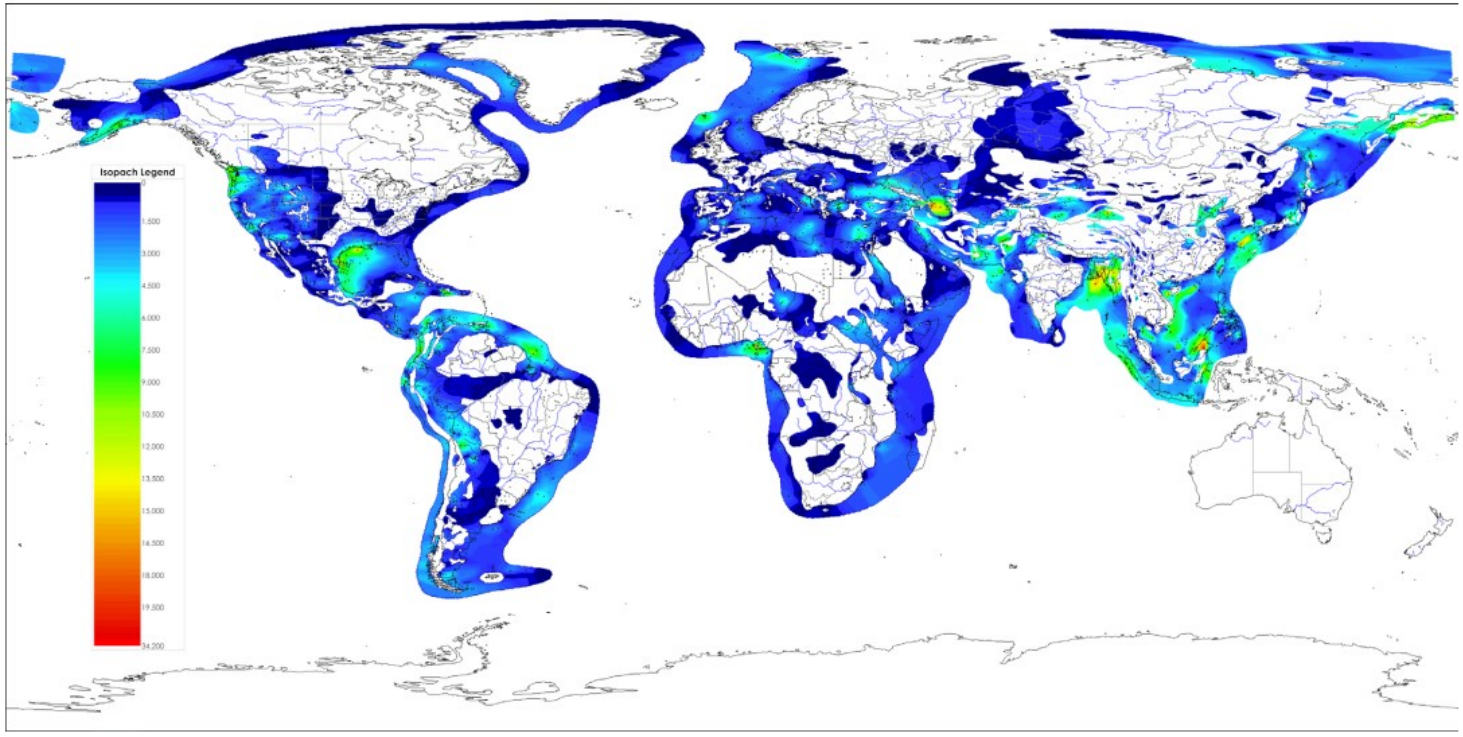


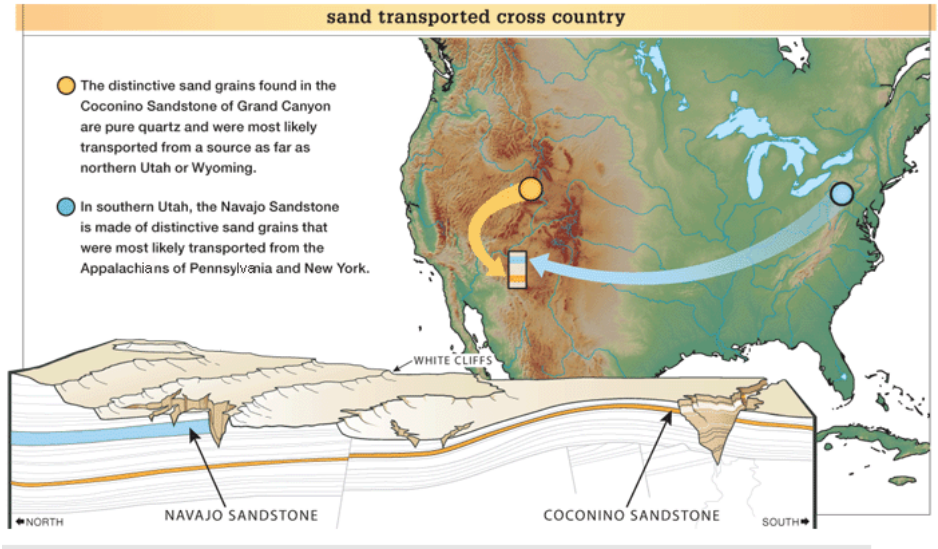
Figure 12. Tejas megasequence isopach (thickness) and extent map across North and South America, Europe, Africa and Asia. Measurements in meters.

For More, see: [A Progressive Global Flood Model Confirmed by Rock Data Across Five Continents (cedarville.edu)]

11. If the Flood waters swept over the continents and rapidly deposited sediment layers across vast areas, these sediments had to have been transported from distant sources. For example, as was mentioned above, the Coconino Sandstone of the Grand Canyon, has an average thickness of 315 feet, covers an area of at least 200,000 square miles, and thus contains at least 10,000 cubic miles of sand. Where did this sand come from and how do we know? The sand grains are pure quartz (a natural glass mineral), which is why the Coconino Sandstone is such a distinctive buff color. Directly underneath it is the strikingly different red-brown Hermit Formation, consisting of siltstone and shale. Sand for the Coconino Sandstone could not have come from the underlying Hermit Formation. The sloping remnants of sand "waves" in the Coconino Sandstone point to the south, indicating the water that deposited the sand flowed from the north. Another clue is that the Coconino Sandstone thins to zero to the north in Utah, but the Hermit Formation spreads further into Utah and beyond. So, the Coconino's pure quartz sand had to come from a source even further north, above the red-brown Hermit. The Grand Canyon has another layer with sands that must have come from far away—the sandstone beds within the Supai Group strata between the Hermit Formation and the Redwall Limestone. In this case, the sand "wave" remnants point to the southeast, so the sand grains had to be deposited by water flowing from a source in the north and west. However, to the north and west of the Grand Canyon we find only Redwall Limestone underneath the Supai Group, so there is no nearby source of quartz sand for these sandstone beds. Thus, an incredibly long distance must be postulated for the source of Supai Group sand grains, probably from a source as far away as northern Utah or even Wyoming.

12. Higher in the strata sequence is the Navajo Sandstone of southern Utah, best seen in the spectacular mesas and cliffs in and around Zion National Park. The Navajo Sandstone is well

above the Kaibab Limestone, which forms the rim rock of Grand Canyon. Like Grand Canyon sandstone, this sandstone also consists of very pure quartz sand, giving it a distinctive brilliant white color, and it also contains remnants of sand "waves." However, we have to look even farther for the original rocks that eroded to form the sand in this sandstone layer. Fortunately, within this sandstone we find grains of the mineral zircon, which is relatively easy to trace to its source because zircon usually contains radioactive uranium. By "dating" these zircon grains, using the uranium-lead (U-Pb) radioactive method, it has been postulated that the sand grains in the Navajo Sandstone came from the Appalachians of Pennsylvania and New York, and from former mountains farther north in Canada.



13. This "discovery" poses somewhat of a dilemma for conventional uniformitarian (slow-and-gradual) geologists, because no known sediment transport system, even today, is capable of carrying sand right across the entire North American continent during the required millions of years. It must have been water over an area even bigger than the continent. All they can do is postulate that some unknown transcontinental river system must have done the job. But even in their scientific belief system of earth history, it is impossible for such a river to have persisted for millions of years.

14. Yet the evidence is overwhelming that the water was flowing in one direction. More than half a million measurements have been collected from 15,615 localities recording water current direction indicators throughout the geologic record of North America. Based on these measurements, water moved sediments right across the continent, from the east and northeast to the west and southwest throughout the so-called Paleozoic.

15. This pattern continued on up into the Mesozoic, when the Navajo Sandstone was deposited, although some water currents shifted more southward. The only logical and viable explanation is the global cataclysmic Genesis Flood. Only the water currents of a global ocean, lasting a few months, could have transported such huge volumes of sediments right across North America to deposit the thick strata sequences which blanket the continent.

16. Slow-and-gradual (present-day uniformitarian) processes cannot account for this evidence, but a catastrophic Genesis Flood surely can.

17. References and resources:

a. https://answersingenesis.org/geology/rock-layers/transcontinental-rock-layers/
b. https://answersingenesis.org/the-flood/flood-cataclysm-deposit-uniform-rock-layers/
c. https://answersingenesis.org/the-flood/global/worldwide-flood-evidence/
d. https://answersresearchjournal.org/water-flows-creation-week-early-flood/
e. https://answersingenesis.org/the-flood/global/evidences-genesis-flood/
f. https://answersingenesis.org/geology/a-complex-geologic-puzzle/
g. https://answersresearchjournal.org/sedimentary-record-flooding-sauk/
h. https://biblicalgeology.net
i. https://answersingenesis.org/the-flood/what-are-some-of-the-best-flood-evidences/
j. https://answersresearchjournal.org/petrology-tapeats-sandstone-tonto-group/

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vi. **Evidence #6:**

The rapid and destructive power of Water Cavitation and Fluid Dynamics can quickly (and has recently) cut out canyons and other major geological features.

The examples below give a hint (on a micro-scale) what the power of a catastrophic global flood could do on a large-scale in devastating and changing the surface of the whole earth.

1. **Oroville Dam (California) Cavitation Damage within days, February 2017**

https://en.wikipedia.org/wiki/Oroville_Dam_crisis

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2. **Glen Canyon Dam (Arizona) – Spillway Cavitation Damage**
(damaged within **minutes**, June 2nd, 1983)

https://en.wikipedia.org/wiki/Risks_to_the_Glen_Canyon_Dam

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3. Mt. St. Helens, "Little Grand Canyon" thru Water Hydraulics

(140 ft high, its width up to 150 ft, created in a **one day**, 19 March 1982)

https://creation.com/lessons-from-mount-st-helens

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4. **Mt. St. Helens, North Fork Toutle River canyon thru Water Hydraulics,**
   (25 ft. thick sedimentary deposited in **just three hours**, from 9 pm to midnight on 12 June 1980.

https://creation.com/lessons-from-mount-st-helens

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5. Mt. St. Helens' Loowit Canyon (Water Hydraulics and Cavitation)

(100 feet, carved by mudflows within **a few months**, late 1980, & partly through hard volcanic rock)

https://creation.com/lessons-from-mount-st-helens

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6. Burlingame Canyon, Washinton (Thru Water Hydraulics)

Burlingame Ditch Canyon, Walla Walla, Wa, March 1926, **in just 6 days**.

https://creation.com/a-canyon-in-six-days

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7. December 2004 Indian Ocean Tsunami, the Power of Water Hydraulics:

https://www.youtube.com/watch?v=zTVwsqdcA7U

vii. <u>Evidence #7</u>: No Slow Erosion seen Between Major Sedimentary Strata layers (only rapid erosion or no erosion at all).

1. If the fossil-bearing layers took hundreds of millions of years to accumulate, then we would expect to find many examples of weathering and erosion after successive layers were deposited. The boundaries between many sedimentary strata should be broken by lots of topographic relief with weathered surfaces. After all, shouldn't periods of weathering and erosion for millions of years follow each deposition?
2. On the other hand, in the cataclysmic global Flood most of the fossil-bearing layers would have accumulated in just over one year. Under such catastrophic conditions, even if land surfaces were briefly exposed to erosion, such erosion (called sheet erosion) would have been rapid and widespread, leaving behind flat and smooth surfaces. The erosion would not create the localized topographic relief (hills and valleys) we see forming at today's snail's pace. So, if the Genesis Flood caused the fossil-bearing geologic record, then we would only expect evidence of rapid or no erosion at the boundaries between sedimentary strata. And this is what we essentially find.
3. At the boundaries between some sedimentary layers, we find evidence of only rapid erosion. In most other cases, the boundaries are flat, featureless, and knife-edge, with absolutely no evidence of any erosion, as would be expected during the Genesis Flood.

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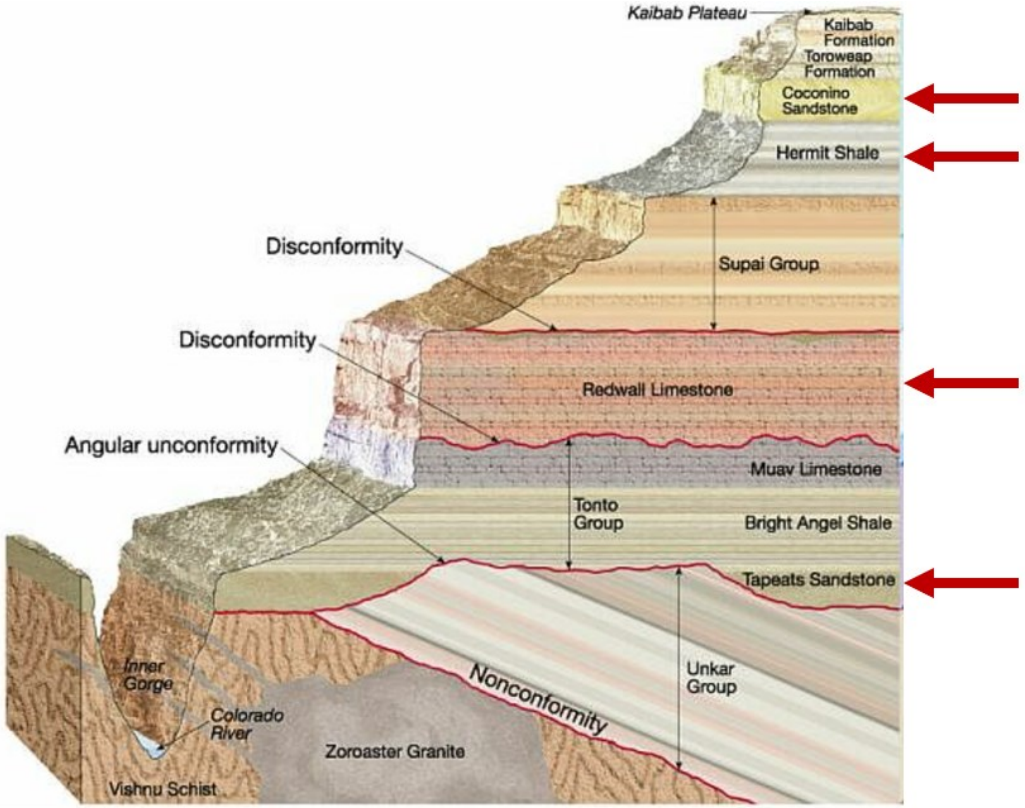
4. The Grand Canyon offers numerous examples of strata boundaries that are consistent with deposition during the Genesis Flood. However, we will focus here on just four, which are typical of all the others, appearing at the bases of the **Tapeats Sandstone**, **Redwall Limestone**, **Hermit Formation**, and **Coconino Sandstone**.

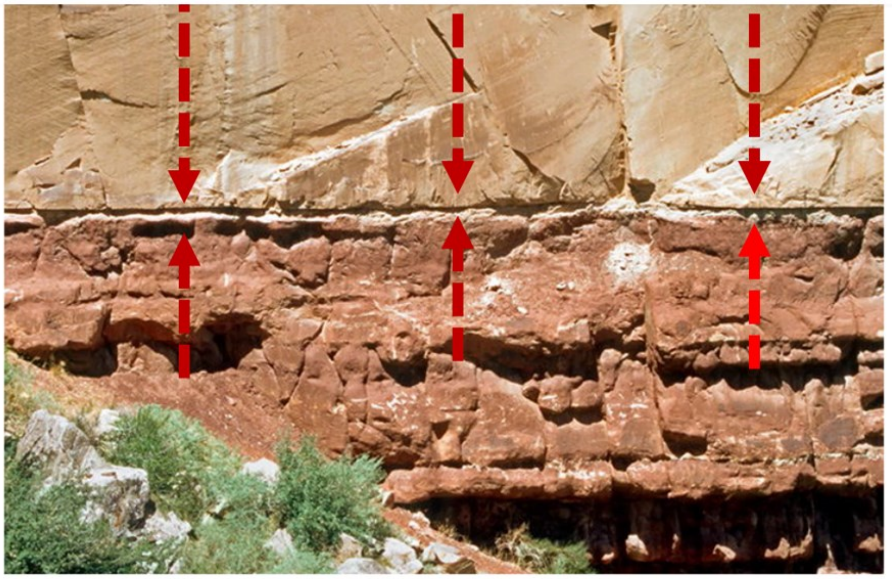


5. The strata below the **Tapeats Sandstone** has been rapidly eroded and then extensively scraped flat (planed off). We know that this erosion occurred on a large scale because we see its effects from one end of the Grand Canyon to the other. This massive erosion affected many different underlying rock layers—granites and metamorphic rocks—and tilted sedimentary strata. There are two evidences that this large-scale erosion was also rapid. First, we don't see any evidence of weathering below the boundary—we don't see the expected soils. Second, we find boulders and features known as "storm beds" in the Tapeats Sandstone above the boundary. Storm beds are sheets of sand with unique internal features only produced by storms, such as hurricanes.

6. **Redwall Limestone**: Below the base of the Redwall Limestone the underlying Muav Limestone has been rapidly eroded in a few localized places to form channels. These channels were later filled with lime sand to form the Temple Butte Limestone. Apart from these rare exceptions, the boundary between the Muav and Redwall Limestones, as well as between the Temple Butte and Redwall Limestones, are flat and featureless, hallmarks of continuous deposition.

7. Indeed, in some locations the boundary between the Muav and Redwall Limestones is impossible to find because the Muav Limestone continued to be deposited after the Redwall Limestone began. These two formations appear to inter-tongue (thin beds of each formation are interleaved with one another), so the boundary is gradational. This feature presents profound problems for uniformitarian geology. It is much more logical to believe that these limestones were deposited continuously, without any intervening millions of years. However, the evidence indicates that water was still depositing material, even as erosion occurred.
8. **Hermit Formation**: In places, the Hermit Formation's silty shales are intermingled (intertongued) with the Esplanade Sandstone, indicating that a continuous flow of water carried both silty mud and quartz sand into place. Thus, there were no millions of years between these layers. Flat, Featureless Boundary. The flat, featureless boundary between these two layers indicates that the top layer (Coconino Sandstone) was laid down right after the bottom layer (Hermit Formation), before any erosion could occur.
9. **Coconino Sandstone**: Finally, the boundary between the Coconino Sandstone and the Hermit Formation is flat, featureless, and knife-edge from one end of the Grand Canyon to the other. There is absolutely no evidence of any erosion on the Hermit Formation before the Coconino Sandstone was deposited. That alone is amazing. The fossil-bearing portion of the geologic record consists of tens of thousands of feet of sedimentary layers, of which about 4,500 feet are

exposed in the walls of the Grand Canyon. On the other hand, if this enormous thickness of sediments were all deposited in just over a year during the global cataclysmic Genesis Flood, then the boundaries between the layers should show evidence of continuous rapid deposition, with only occasional evidence of rapid erosion, or of no erosion at all. And that's exactly what we find, as illustrated by strata boundaries in the Grand Canyon:



The boundary separating the Coconino Sandstone (top layer of rock) and Hermit Formation (bottom layer) shows no evidence of the millions of years of erosion that evolutionary geologists claim should exist between these layers.

https://answersingenesis.org/the-flood/global/evidences-genesis-flood/
https://answersingenesis.org/the-flood/what-are-some-of-the-best-flood-evidences/
https://www.youtube.com/watch?v=EscPPM7Wpjs

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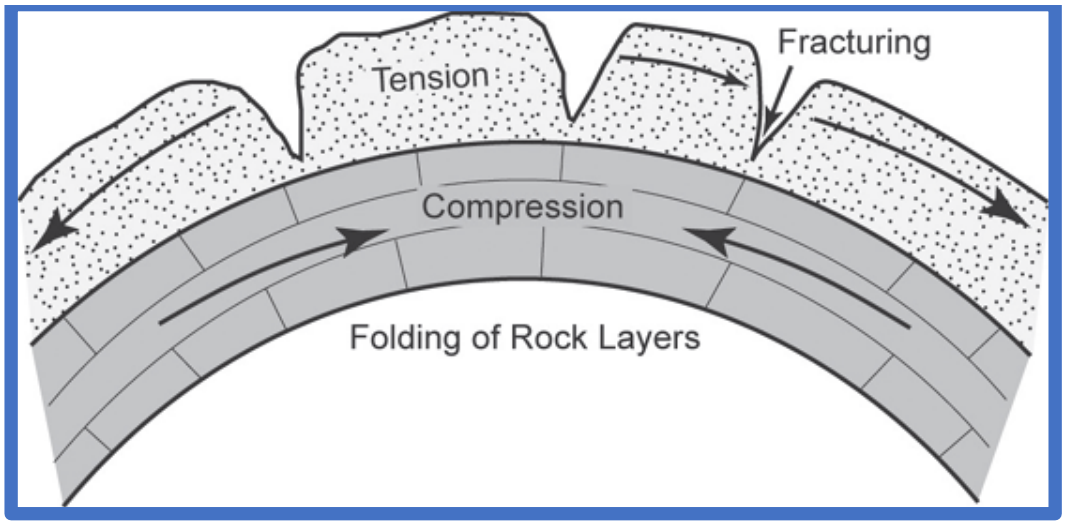
viii. Evidence #8:

1. **Many Sedimentary Strata Laid Down in Rapid Succession.** This evidence is what a global flood would be expected to produce.

2. If the Genesis Flood deposited all these strata in a little more than a year, then the individual layers would have been deposited in rapid succession. Do we see evidence in the walls of the Grand Canyon that the sedimentary layers were all laid down in quick succession? Yes, absolutely. The entire sequence of sedimentary strata must have been still soft during subsequent folding and experienced only limited fracturing.



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These rock layers would have broken and shattered unless all the strata were immediately folded while the sediment was still relatively soft and pliable. When solid, hard rock is bent (or folded) it invariably fractures and breaks because it is brittle. Rock will bend only if it is still soft and pliable—"plastic" like modeling clay or children's play-dough. The pressure of other sediment layers on top of each layer squeezes the particles closer together and forces out much of the water. The internal heat of the earth may also cause additional dehydration of the sediments.

Removal of the water dries the sediment layer and converts the chemicals that were in the water and between the clay particles into a natural cement. This cement transforms the originally soft and wet sediment layer into a hard, brittle rock layer. This process, known technically as diagenesis, can be exceedingly rapid. It is known to occur within hours but generally takes days or months, depending on the prevailing conditions.

It's possible to see these folded sedimentary layers in several side canyons. For example, the folded **Tapeats Sandstone** can be seen in **Carbon Canyon** (below). Notice that these sandstone layers were bent 90° (a right angle), yet the rock was not fractured or broken in the fold axis or hinge line (apex) of the fold. Similarly, the folded Muav and Redwall Limestone layers can be seen along nearby Kwagunt Creek. The folding of these limestones did not cause them to fracture and break either, as would be expected for ancient, brittle rocks. The obvious conclusion is that these sandstone and limestone layers were all folded and bent while the sediments were still soft and pliable, and very soon after they were deposited. ***(Pictures of folded rack strata below)***

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https://answersingenesis.org/geology/rock-layers/rock-layers-folded-not-fractured/
https://assets.answersingenesis.org/doc/articles/pdf-versions/rock-layers.pdf

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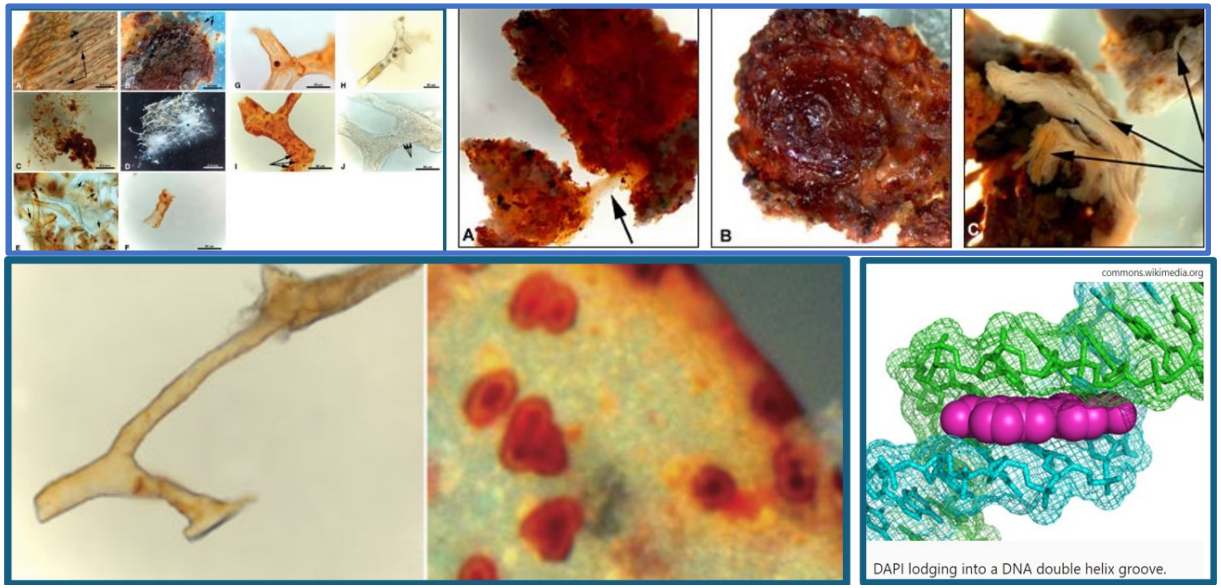
ix. **<u>Evidence #9:</u> Dinosaur fossils with evidence of Soft-tissue, Carbon-14, and red-blood cells. This evidence is what would be expected in dinosaur fossils if buried in a recent global flood.**

1. Soft tissue, Carbon-14, and red-blood cells have been found in Dinosaur fossils. Carbon-14 completely depletes by 95K years, yet there are Dinosaur examples still containing C-14. Also, Biochemicals in such tissues spontaneously break down within only thousands of years after death, yet they still exist. Soft tissue is believed to last only thousands of years (not millions) and with only a maximum 5100 years of recorded world history, there is no proof that soft-tissue in fossils ever existed beyond that.

<u>Picture Examples</u>:



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2. The current existence of Dinosaur blood cells, blood vessels, proteins (hemoglobin, osteocalcin, collagen, histones) and DNA are not consistent with an old fossil age, but evidence a young age for those fossils.
    - Click links For Reference Documents:
        - Schweitzer, Dino DNA, BONE, 2012
        - https://youtu.be/XEtL6XjRqMg
        - https://creation.com/dino-dna-bone-cells
        - https://www.researchgate.net/publication/7944782_Soft-Tissue_Vessels_and_Cellular_Preservation_in_Tyrannosaurus_rex
        - https://www.researchgate.net/profile/Mary-Schweitzer/publication/6397675_Analyses_of_Soft_Tissue_from_Tyrannosaurus_rex_Suggest_the_Presence_of_Protein/links/0fcfd51488e678564b000000/Analyses-of-Soft-Tissue-from-Tyrannosaurus-rex-Suggest-the-Presence-of-Protein.pdf
        - https://www.icr.org/soft-tissue-list

3. Bone slices from the fossilized thigh bone (femur) of a Tyrannosaurus rex found in the Hell Creek formation of Montana were studied under the microscope by Schweitzer. To her amazement, the bone showed what appeared to be **blood vessels** of the type seen in bone and marrow, and these contained what appeared to be **red blood cells** with nuclei,

typical of reptiles and birds (but not mammals). The vessels even appeared to be lined with specialized endothelial cells found in all blood vessels. (see prior pictures)

References:

- Schweitzer, et al., "Soft-Tissue Vessels and Cellular Preservation in Tyrannosaurus rex," *Science*, (2005).
- https://answersingenesis.org/fossils/3-soft-tissue-in-fossils/
- https://answersingenesis.org/dinosaurs/bones/two-those-not-so-dry-bones/
- https://answersingenesis.org/dinosaurs/bones/more-soft-tissue-in-old-fossils/

4. Carbon-14 (or radiocarbon) is a radioactive form of carbon that scientists use to date fossils. But it decays so quickly—with a half-life of only 5,730 years—that none is expected to be detected in fossils after 95 thousand years. Yet carbon-14 has been detected in so-called "ancient" fossils.

a. References:

- https://answersingenesis.org/geology/carbon-14/7-carbon-14-in-fossils-coal-and-diamonds/
- https://www.creationresearch.org/crsq-2015-volume-51-number-4_radioncarbon-in-dinosaur-and-other-fossils
- Paul Giem, "Carbon-14 Content of Fossil Carbon," *Origins* 51 (2001): 6–30

Answers4Seekers: Session #14A (semi-technical)

5. **Additional examples of so-called "Ancient" Fossils still with soft-tissue:**

FOSSIL ANALYSES WITH VERIFIED ORIGINAL SOFT TISSUES

	Publication Date	Brief Description	Publication
		Articles Published in Peer-Reviewed Journals	
1	8/6/1966	*Tarbosaurus* collagen fibers	Pawlicki, R. et al, *Nature*, 211 (5049): 655-657.
2	6/14/1992	Seismosaur osteocalcin (bone protein)	Muyzer, G. et al, *Geology*, 20: 871-874.
3	9/25/1992	DNA in amber	Morell, V. et al, *Science*, 257 (5078): 1860-1862.
4	6/16/1994	Hadrosaur bone possible DNA	Woodward, S. R., N. J. Weyand, and M. Bunnell, *Science*, 266 (5188): 1229-1232.
5	5/19/1995	Live bacteria spores from amber	Cano, R. J. and M. K. Borucki, *Science*, 268 (5213): 1060-1064.
6	6/10/1997	*T. rex* bone hemoglobin fragments	Schweitzer, M. et al, *PNAS*, 94 (12): 6291-6296.
7	6/2/1999	Live bacteria from halite deposit	Vreeland, R. H. et al, American Society for Microbiology, 99th General Meeting, June 2, 1999, Chicago.
8	6/21/1999	Live bacteria from separate rock salts	Stan-Lotter, H. et al, *Microbiology*, 145 (12): 3565-3574.
9	6/21/1999	Cretaceous Madagascar bird keratin	Schweitzer, M. H. et al, *J. Vert. Paleo*, 19 (4): 712-722 .
10	9/1/2001	*T. rex* collagen SEM scans	Armitage, M., *Creation Research Society Quarterly*, 38 (2): 61-66.
11	6/26/2004	Live (non-spore) bacteria in amber	Greenblatt, C. L. et al, *Microbial Ecology*, 48 (1): 120-127.
12	3/24/2005	*T. rex* soft tissue	Schweitzer, M. et al, *Science*, 307 (5717): 1952-1955.
13	7/25/2006	Soft frog, intact	McNamara, M. et al, *Geology*, 34 (8): 641-644.
14	6/30/2007	*T. rex* collagen	Schweitzer, M. et al, *Science*, 316 (5822): 277-280
15	1/22/2007	*Triceratops* and *T. rex* blood vessels	Schweitzer, M. H. et al, *Proc. Roy. Soc. B*, 274: 183-197
16	4/7/2008	*Psittacosaurus* skin	Linghan-Soliar, T. et al, *Proc. Royal Soc. B*, 275: 775-780.
17	7/8/2008	Feather melanocytes	Vinther, J. et al, *Biology Letters*, 4: 522-525.
18	4/30/2009	Hadrosaur blood vessels	Schweitzer, M. et al, *Science*, 324 (5927): 626-631.
19	8/26/2009	Purple Messel feather nanostructure	Vinther, J. et al, *Biology Letters*, 6 (1): 128-131.
20	5/19/2009	Primate "Ida" soft body outline	Franzen, J. L. et al, *PLoS ONE*, 4 (5): e5723.
21	7/1/2009	Hadrosaur skin cell structures	Manning, P. et al, *Proc. Royal Soc. B*, 276: 3429-3437.
22	10/2/2009	Permo-triassic fungal chitin	Jin, Y. G. et al, *Science*, 289 (5478): 432-436.
23	8/18/2009	Squid ink	Whilby, P.R. et al, *Geology Today*, 24 (3): 95-98.
24	11/5/2009	Salamander muscle, whole	McNamara, M. et al, *Proc. Royal Soc. B*, 277 (1680): 423-427.
25	2/25/2010	*Sinosauropteryx* melanosomes	Zhang, F. et al, *Nature*, 463: 1075-1078.
26	5/14/2010	Mammal hair in amber	Vullo, R., *Naturwissenschaften*, 97 (7): 683-687.
27	5/18/2010	*Archaeopteryx* original feather remnants	Bergmann, U., *PNAS*, 107 (20): 9060-9065.
28	8/9/2010	Mosasaur blood, retina	Lindgren, J., *PLoS ONE*, 5 (8): e11998.
29	11/12/2010	Penguin feathers	Clarke, J. A. et al, *Science*, 330 (6006): 954-957.
30	2/7/2011	Chitin and chitin-associated protein	Cody, G.D. et al, *Geology*, 39 (3): 255-258.
31	4/1/2011	C-14 date of mosasaur (24,600 Yrs)	Lindgren, J. et al, *PLoS ONE*, 6 (4): e19445.
32	3/23/2011	Lizard tail skin, Green River	Edwards, N. P. et al, *Proc. Royal Soc B*, 278: 3209-3218.
33	6/8/2011	*T. rex* and hadrosaur Type I Collagen	San Antonio, J. D. et al, *PLoS ONE*, 6 (6): e20381.
34	6/30/2011	Bird feather pigment	Wogelius, R. A. et al, *Science*, 333 (6049): 1622-1626.
35	2013	*Triceratops* horn soft tissue whole sheet	Armitage, M. H., and K. L. Anderson, *Acta Histochimica*, 115 (6): 603-608.
36	10/15/2015	Tube worm chitin	Moczydlowska, M. F. et al, *J. Paleontology*, 88 (2): 224-239.
37	7/9/2015	*Brachylophosaurus* collagen sequence	Bertazzo, S. et al, *Nature Communications*, 6: 7352.
38	9/15/2016	*Psittacosaurus* skin scale keratin	Vinther, J., et al, *Current Biology*, 26 (18): 1-7.
39	1/31/2017	*Lufengosaurus* rib collagen	Lee, Y.-C. et al, *Nature Communications*, 8: 14220.
40	8/29/2017	Dinosaur eggshell protoporphyrin, biliverdin	Wiemann, J. et al, *PeerJ*, 5: e3706.
41	4/18/2018	Conodont keratin residue	Terrill, D. F. et al, *J. of Analytical Spectrometry*, 33: 992-1002.

Selection of Published Reports of Original Soft Tissue Fossils

Papers that were excluded from the list include those with dubious verbiage, especially those that discussed "soft tissues" but failed to specify whether or not the tissues were original or chemically altered to a more resistant material. Those papers that specified the latter were also excluded, to the best of the author's ability to discern. The chart demonstrates that a multitude of verified original soft tissue and biochemical "clocks" have set maximum ages of thousands of years to samples that had all been assigned ages of millions of years.

https://www.icr.org/soft-tissue-list

6. Again, dinosaur fossils with evidence of Soft-tissue, Carbon-14, and red-blood cells is what would be expected in dinosaurs were buried in a recent global flood.

x. **<u>Evidence #10</u>:**
Fossil tracks are found in a lower sedimentary layer while their fossils remains are found above in an adjacent sedimentary layer.

1. This evidence is what a global flood would be expected to produce, quick sedimentary layers burying organisms that are trying to escape.

2. In the global fossil record, the tracks left by organisms (e.g., dinosaurs, trilobites, etc.) in the sedimentary layers, are typically found right under the sedimentary layers the contains the organism's fossil (fossilized hard-parts, bones, teeth, etc.).

3. This would be the expected effect of quick ebbs and flows from flood waves, where organisms try to escape the sediment waves from the flood and leave soft footprints or trackways, but quickly get buried themselves as the next sediment waves bury them.

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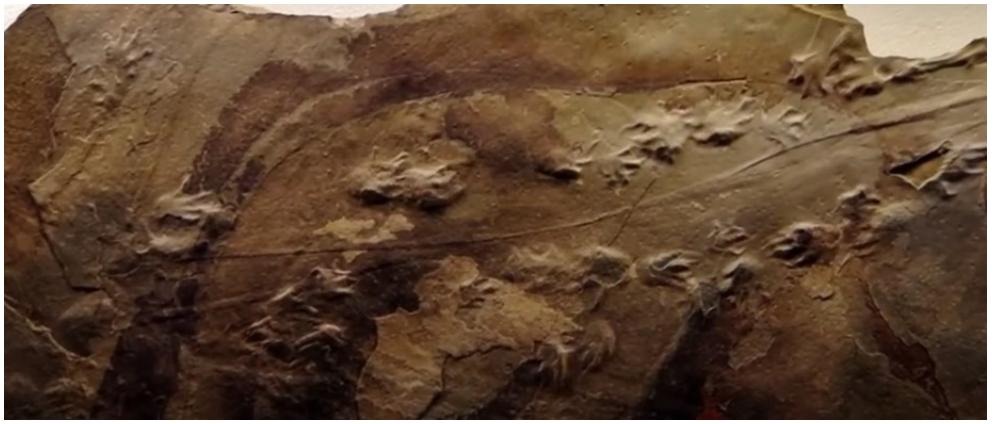
4. Trackway Pictures Below:



5. References:

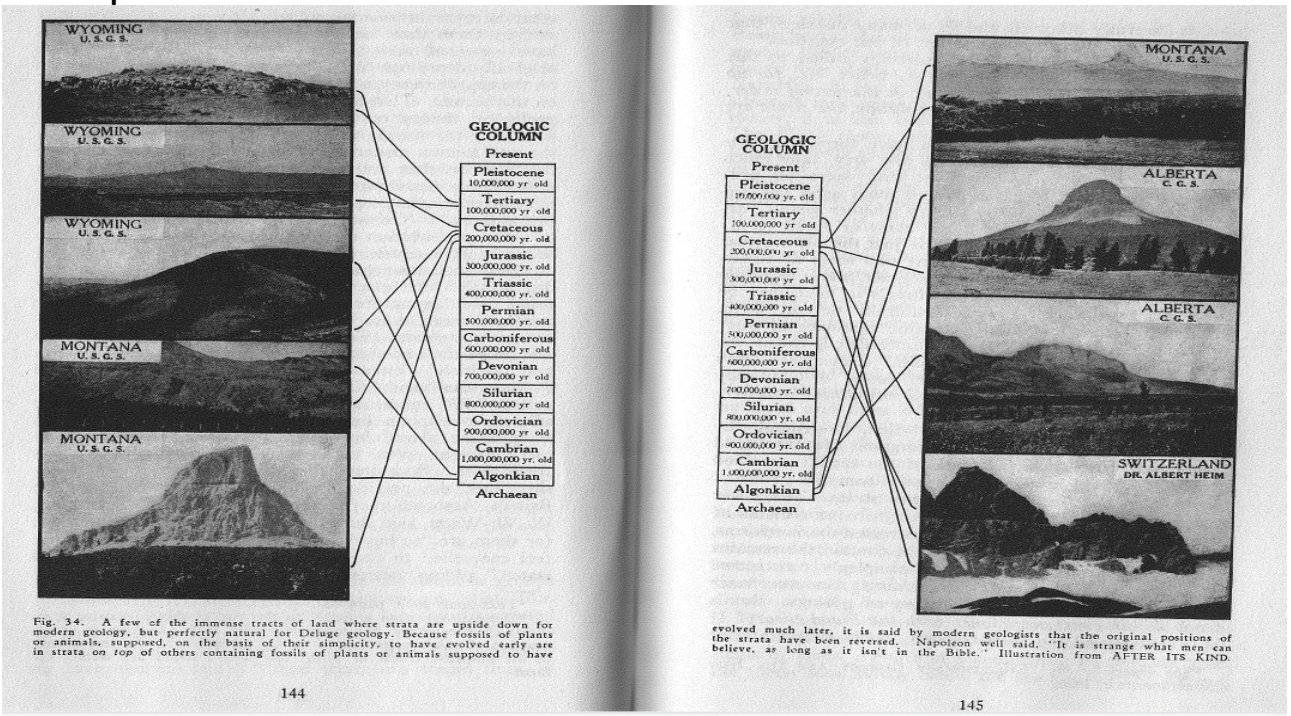
- https://isgenesishistory.com/what-does-the-fossil-record-show-about-history-earth/ (start at 6:50min)
- https://www.youtube.com/watch?v=0h3ZxOIIztE

Answers4Seekers: Session #14A (semi-technical)

Evidence #11:

Fossils of simpler organisms are sometimes found in sedimentary layers (strata) above more complex organism fossils. This evidence aligns well with a year-long, violent global catastrophic flood, but is contrary to uniformitarian expectations.

Examples of out-of-order Fossil Strata:



The Deluge Story in Stone, Nelson, 1968 (pgs 142-147)

Answers4Seekers: Session #14A (semi-technical)

1. Stratum that has very simple fossils are often found atop stratum that contain more complex fossils. See image above for examples of out-of-order strata layers. This conundrum has forced uniformitarians to propose that the strata was flip upside-down or was an over-fault to try to solve this problem. Yet, this anomaly would be completely expected if a global catastrophic flood occurred.

2. Other Examples:
   a. Fossilized plants and insects below Cambrian rocks: In the Salt Range Formation (Karakorum Mountains), scientists have discovered fossilized plants and insects. However, this formation (and fossils) lies beneath Cambrian rocks, which are supposedly over 400 million years older than these plants and insects (from a uniformitarian perspective). So why are the fossils of more complex life buried below fossils considered much more primitive?

   b. Angiosperm-like pollen and Afropollis: European scientists report the discovery of flowering plant fossils in Middle-Triassic rocks—conventionally assumed to be around 240 million years old. According to secular age assignments, flowering plants were not supposed to have evolved until 100 million years later! This is another example of fossil being incorrectly dated by uniformitarians in the rock strata.

   c. Many Living Fossils Exist Today: Organisms believed to be extinct in the fossil record, are now found alive and existing today; this places these organism way out of sync with the uniformitarian belief that organism stay in their geologic column era.

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d. [Click to see Living Fossils Chart]:

e. [Sabellidites (worms)]: Thought to be 550 Million years old by uniformitarians, but the chitin-containing worm tube fossils look the same as those made by **modern worms** of the same type, complete with high-tech structural cross-layering. With these fossils exhibiting soft parts, along with some resemblance to modern worms, this is unexpected for a fossil of that proposed age.

3. **References**:
   - https://www.frontiersin.org/journals/plant-science/articles/10.3389/fpls.2013.00344/full (pollen)
   - https://www.monash.edu.au/__data/assets/pdf_file/0008/85598/moczydlowska-etal-2014-e.pdf Sabellidites
   - The Deluge Story in Stone, Nelson, 1968 (pgs 142-147)
   - https://creation.com/en/videos/ct-order-fossils
   - https://creation.com/en/videos/upside-down-geological-column
   - https://www.icr.org/article/every-fossil-its-evolutionary-place
   - https://assets.answersingenesis.org/doc/articles/am/v6/n1/fossil-chart.pdf
   - https://creation.com/en/videos/upside-down-geological-column
   - https://www.icr.org/article/a-2014-most-notable-news-fossils-resemble Sabellidites
   - https://www.icr.org/article/still-soft-after-half-billion-years Sabellidites
   - https://www.icr.org/article/pollen-fossils-warp-evolutionary-time (pollen)

6) Catastrophic Plate Tectonics (CPT):

a. Catastrophic Plate Tectonics (CPT): Is a geologic model where the earth's crust is divided into a dozen large tectonic plates, each about 100 miles thick, but during the global flood episode the "fountains of the [ocean] deep burst open" and continental plate moment was highly accelerated. CPT differs from the Uniformitarian Plate Tectonics (UPT) model, since from the uniformitarian model, continental plate movement was always slow, and no significant catastrophic event ever occurred. The CPT or UPT models are viewed not only as the possible process producing the current positions on the continents, but also the main process that produced the mountain ranges and volcano ridges worldwide.

b. The idea that the continents had drifted apart was first suggested by a creationist, Antonio Snider-Pellegrini, c.1858. There's strong geological and biblical support for the concept of a **Pangea-like** original supercontinent. From the Biblical Flood model, it appears this land mass rapidly broke apart during the global Flood by the process of catastrophic plate tectonics (CPT). The movement of the plates also formed the ocean basins and mountains in today's world. Both the CPT and UPT models view the mid-Atlantic ocean ridge as a relatively recent event from their model's time perspective. Evidence of catastrophic earth events in the past (e.g., "all the fountains of the great deep being broken up," intercontinental-wide sedimentary layers & Megasequences) provides evidence that accelerated processes during the Global Flood could have also likely highly accelerated the movements of plate-tectonics, providing support for the CPT model and a recent global flood.

c. **Overview of the earth's makeup**: The earth's thin, rocky outer layer (3–45 miles thick) is called "the crust." On the continents it consists of sedimentary rock layers—some containing fossils and some folded and contorted—together with an underlying crystalline rocky basement of granites and metamorphic sedimentary rocks. In places, the crystalline rocks are exposed at the earth's surface, usually as a result of erosion. Beneath the crust is the "mantle," which consists of dense, warm-to-hot (but solid) rock that extends to a depth of 1,800 miles.
   i. Below the mantle lies the earth's core, believed to be composed mostly of iron. All but the innermost part of the core is molten.

ii. Investigations of submarine studies from the 1940's onward, have revealed that the earth's surface has been divided globally by past geologic processes into what today is a mosaic of a dozen rigid blocks called "**plates**."

iii. Observations indicate that these plates have moved large distances in the past relative to one another and that they are still moving very slowly today. The word "tectonics" has to do with earth movements; so, the study of the movements and interactions among these plates is called "plate tectonics." Because almost all the plate motions occurred in the past, plate tectonics is, strictly speaking, an interpretation, model, or theoretical description of what geologists envisage happened to these plates through earth's history.

iv. **Compressional deformation** occurs where two plates move toward one another. If an oceanic crustal plate is moving toward an adjacent continental crustal plate, then the former will usually **subduct** (plunge) beneath the latter. Examples are the Pacific and Cocos Plates that are subducting beneath Japan and South America, respectively. When two continental crustal plates **collide**, the compressional deformation usually crumples the rock in the collision zone to produce a mountain range. For example, the Indian-Australian Plate has collided with the Eurasian Plate to form the Himalayas.

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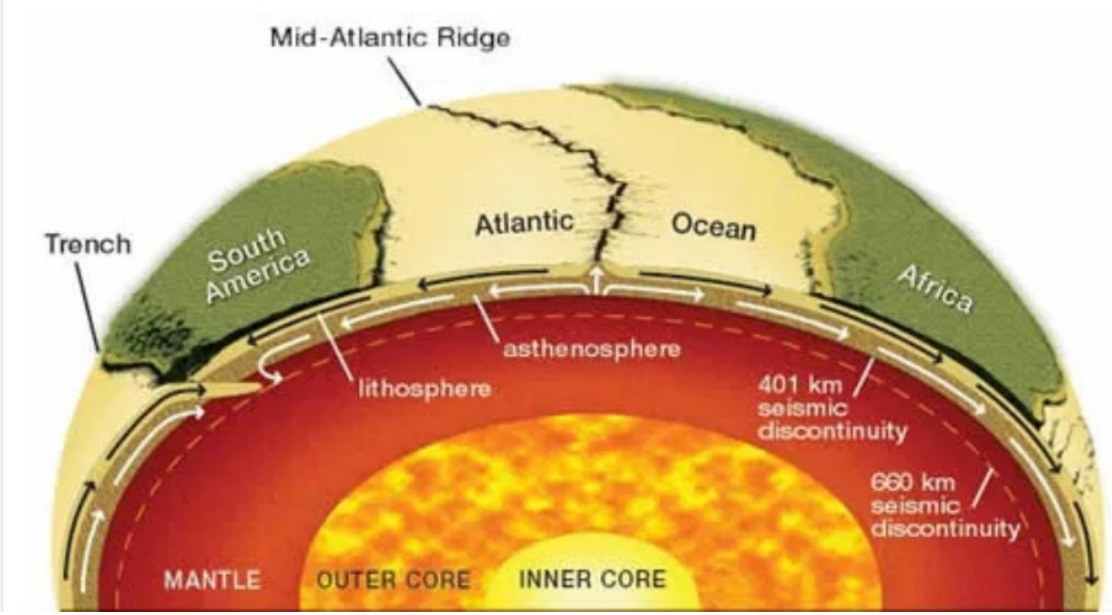
v. **Cross-cut of the Earth**:



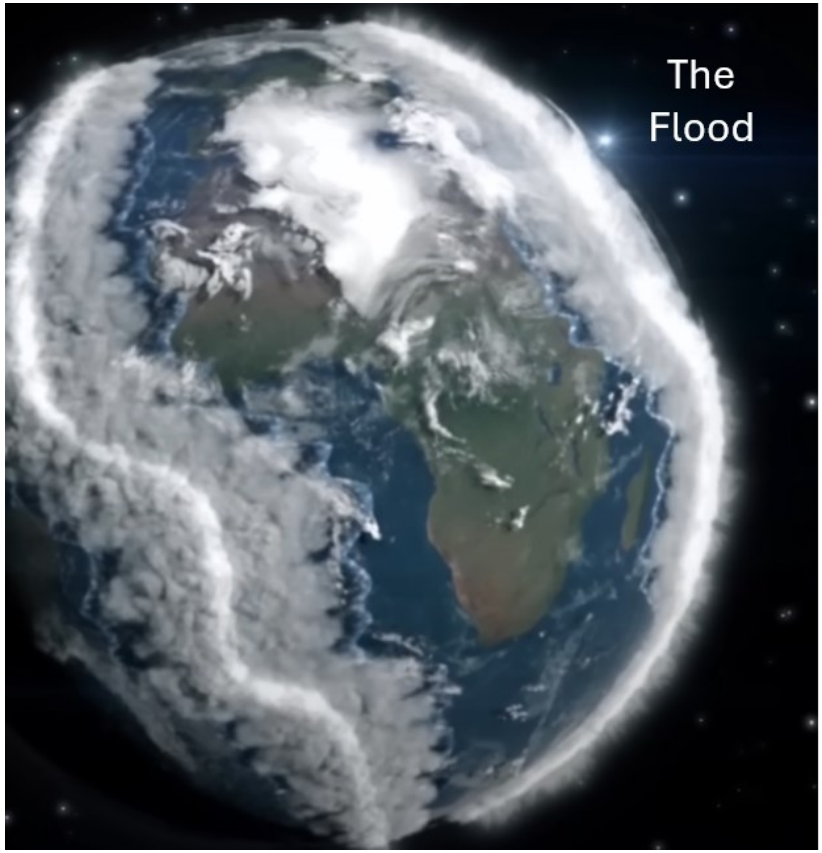
vi. **Concept of Pangea-like supercontinent, The Flood, and CPT:**

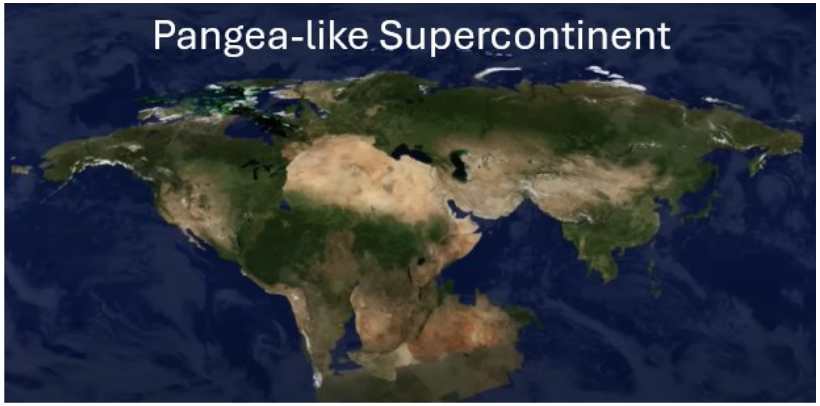
Biblical Record of the Flood: Genesis 7:11, 12, 24, & 8:5 --

"v11 … on that day all the fountains of the great deep were broken up, and the windows of heaven were opened. v12 And the rain was on the earth forty days and forty nights, …. v24 And the waters prevailed on the earth one hundred and fifty days …. v5 And the waters decreased continually until the tenth month. In the tenth *month,* on the first *day* of the month, the tops of the mountains were seen."

Answers4Seekers: Session #14A (semi-technical)

1. Images & Video of the Pangea-like supercontinent, The Flood, and CPT concept:

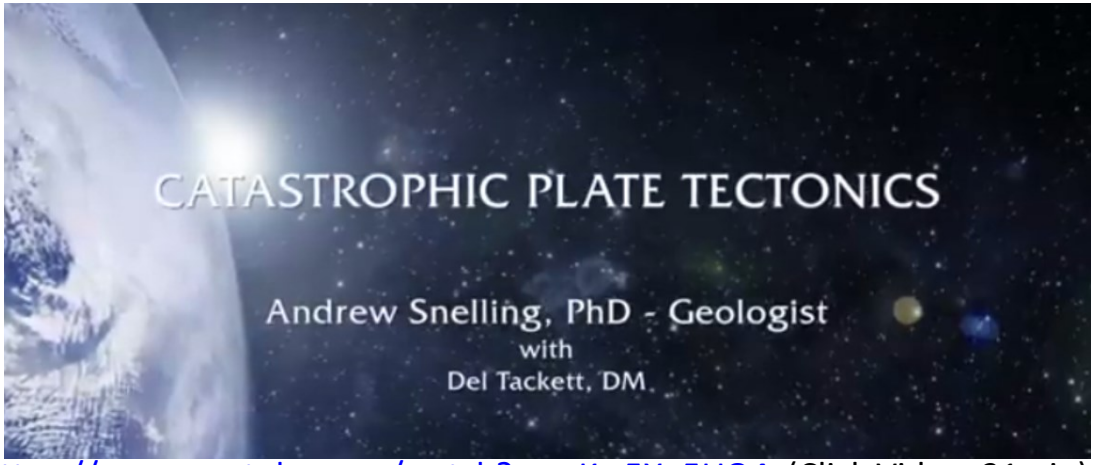




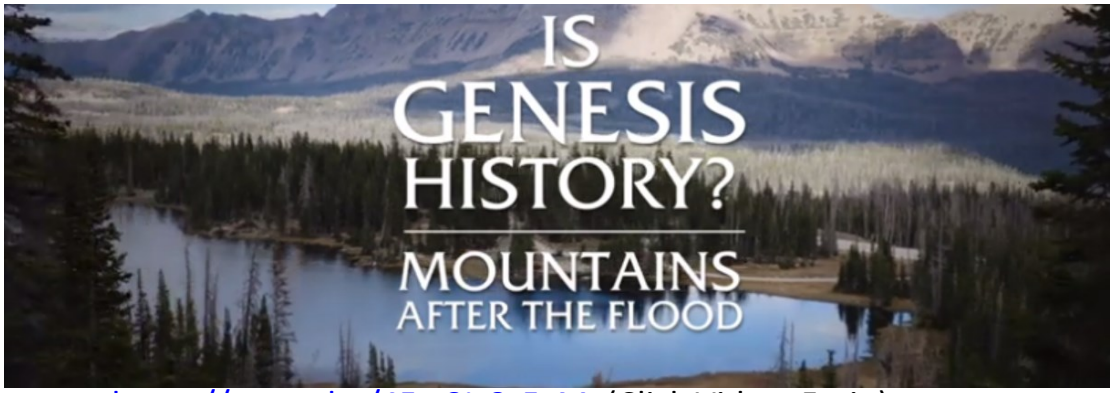
Click for video: https://www.youtube.com/watch?v=zd5-dHxOQhg (23 min)

Answers4Seekers: Session #14A (semi-technical)

2. Additional Catastrophic Plate Tectonics (CPT) Videos:



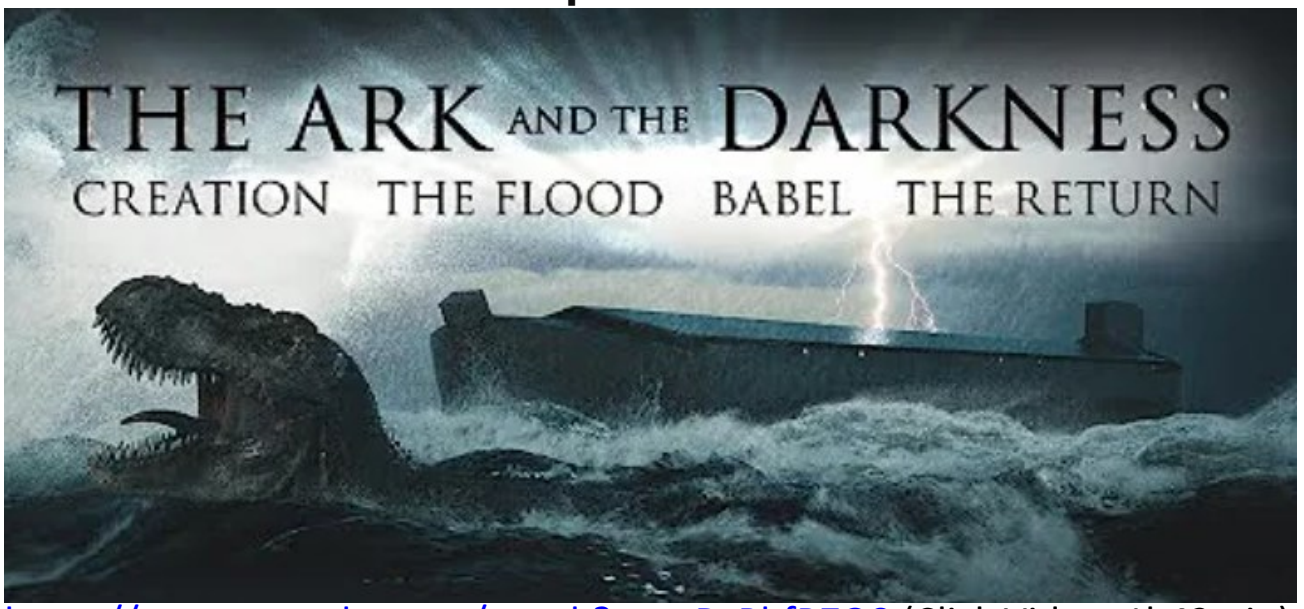
https://www.youtube.com/watch?v=yrKw5Xq5UQ4 (Click Video, 21min)



https://youtu.be/4Fw6Js8z5xM (Click Video, 5min)

Answers4Seekers: Session #14A (semi-technical)

i. Noah's Flood and Catastrophic Plate Tectonics



https://www.youtube.com/watch?v=pyDsRbfB7Q8 (Click Video, 1h42min)

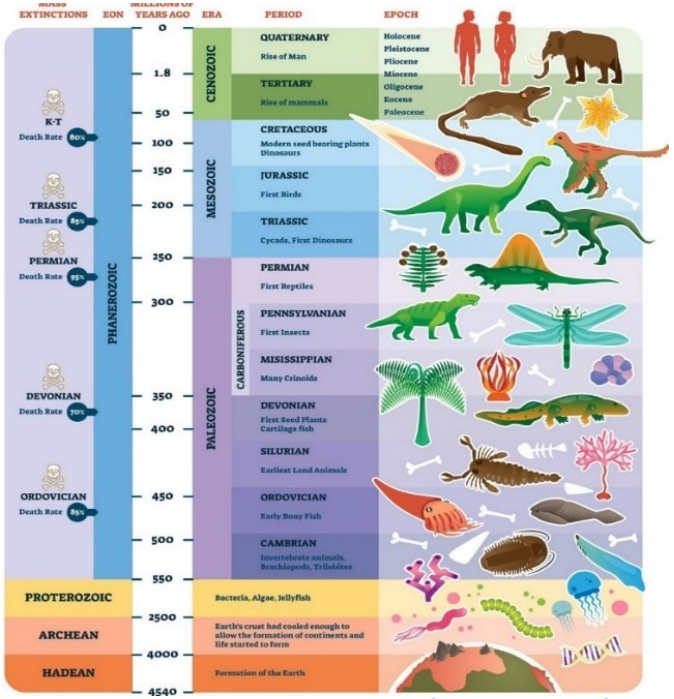
b. Resources

i. *https://answersingenesis.org/geology/plate-tectonics/a-catastrophic-breakup/*
ii. *https://answersingenesis.org/geology/plate-tectonics/did-the-continents-split-apart-in-the-days-of-peleg/*
iii. *https://creation.com/pre-flood-like-pangaea*
iv. *https://answersingenesis.org/geology/plate-tectonics/can-catastrophic-plate-tectonics-explain-flood-geology/*

Answers4Seekers: Session #14A (semi-technical)

7) The Geologic Column vs. the Rock Record

a. The **Geologic Column** is an interpretation of Earth's current "**Rock Record**," along with the fossils contain therein, and is an attempt to postulate the development of life on earth from a purely naturalistic perspective, which requires deep-time, uniformitarianism, and an evolutionary perspective. The **Rock Record** is simply the empirical analysis of Earth's actual rock layers and fossils, based on their identifiable physical properties, order, and regional and continental distribution. The images below compare the Geologic Column model to the Flood Model:



The Geologic Column Model (Naturalistic)

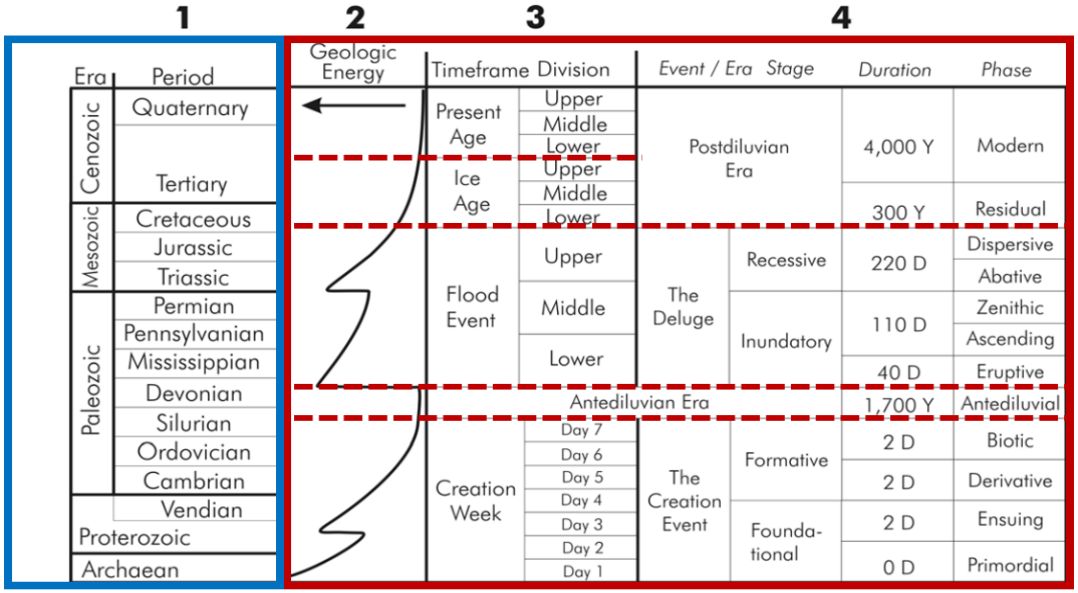


Figure 2. Comparison of stratigraphic interpretive frameworks. They include: (1) the uniformitarian stratigraphic column, (2) geologic energy vs time;[22] (3) Froede's creationist column;[21] and (4) Walker's creationist column.[20] Please note that there is no specific correlation between (1) and the other columns, nor is there exact correlation between the various creationist proposals.

Geologic Column Model (right-side) vs. Flood Model (left-side)

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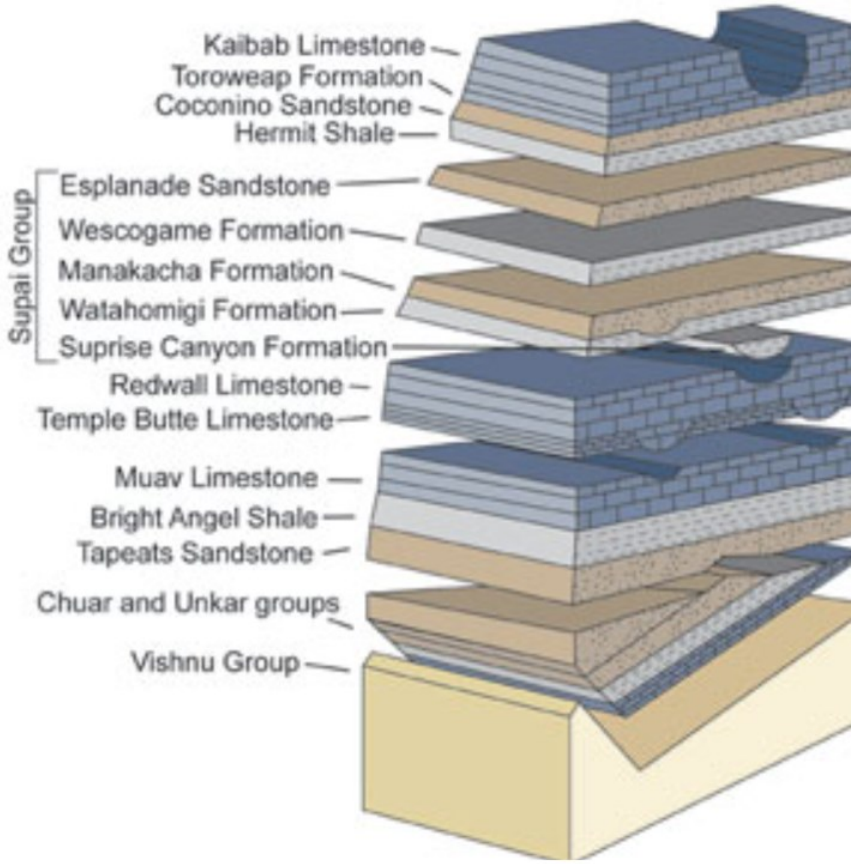
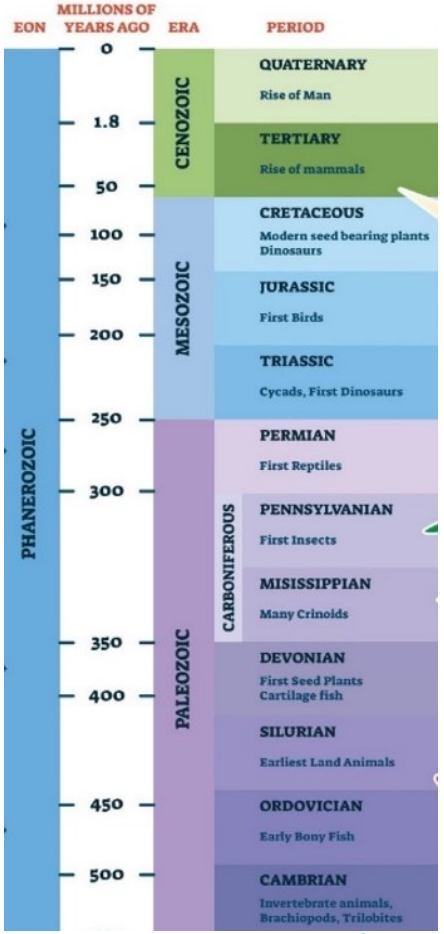
b. Example comparison between the empirical **Rock Record** (of Earth's Strata) and the Naturalistic **Geologic Column** Model:





Empirical Rock Record **versus** **Naturalistic Geologic Column (with listed ideological Deep-time ages)**

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c. The naturalistic **Geologic Column Model** dates the origin of Earth to about 4.5 billion years ago, and the origin of life on Earth to about 500 Million years ago. It should be simply stated that these events are prehistoric and are without any eye-witness record to support these proposals, and so are subject to interpretations based on prior ideologies. It should be noted, the Naturalists are held captive to a deep-time interpretation of any evidence, since without a deep-time interpretation, Naturalism completely fails as even a speculative model for the origin of life on Earth. *Please consider reviewing Session #10 on the Age of the Universe Models, and Session #12B on the weaknesses of the Old-Earth model.*

d. The Strata Rock layers sequence of the **Geologic Column** is roughly in line with the **Flood Model** interpretation, but with many exceptions. The worldwide rock strata is not completely vertical and continuous, but can have differentiated horizontal (lateral) regional aspects also. For example, the Grand Canyon's strata are all "dated" in the Paleozoic Era (Cambrian thru Permian), but only five of the seven periods are represented there.

e. The **Flood Model** dates the origin of the global flood to about 5000 years ago. It should be also stated that these events are also prehistoric, but that this event occurred right before the advent of recorded history, which would be as expected in the Global Flood scenario. Creationists also interpret the evidence in light of their presuppositions, but the Creationists have the benefit of evidences supporting 1) a young earth, 2) over 300 ancient Flood Legends from around the world, and 3) many evidences supporting a recent global flood. When all evidences are even, the younger resulting age-date is to be preferred, since that model minimizes time and opportunity for unknown phenomena to invade and corrupt the model's interpretation. *Please consider review Session #12A the strengths of the Young-Earth model.*

Answers4Seekers: Session #14A (semi-technical)

8) Radiometric Dating Assumptions & Weaknesses

a. Radiometric dating is a formulaic model used as an attempt to project the past age of an object or event that was unobserved. It typically uses 5 to 8 unprovable assumptions that can never be verify. When radiometric dating is used to date newly formed rocks (for example, basalts from new lava flows) the radiometric dates do not match their known dates.

b. **For a full review of the Radiometric dating models, Assumptions, and Weaknesses, please click here to Session #12B, Old Earth & Radiometric Weaknesses.**

c. Due to these documented weaknesses of Radiometric dating (see session 12B), Radiometric dating for Geologic Column rock layer ages cannot be considered authoritative for projecting the absolutes ages of rocks or strata layers.

d. When dating an historic event, dating models that are equally robust and which produce a younger age to be are preferred, since, again, there was less time for unknown forces and events to affect the model. Please see Session #12A, Young Earth Models.

9) Summary

a. The 11 evidences reviewed lend strong support to the occurrence of a recent Global Flood. A catastrophic global flood would have covered the continents, buried plants and animals in rapid succession, and left thick sedimentary layers, which is what we see today.

b. The Catastrophic Plate Tectonics (CPT) model also power explanatory power for phenomena of the separation of continents and the recent formation of high mountain ranges, which both Creationists and Uniformitarians need to provide.

C. The empirical Rock Record is a stronger over Geologic Column, since the current presentation of the Geologic Column is overshadowed by superimposed naturalism and deep-time. As mentioned, it is a false start to attempt to used radiometric dating models for absolute age-dates, since when we have observed the age radiometric dating does not match. (again, please consider reviewing, Session 12b, Old Earth, Assumptions, & Weaknesses.

d. The above basis provides strong support and evidence for the occurrence of a recent global flood.

10) Additional Resources:

a. Books:

i. 2006, Reed, The Geologic Column: Perspectives Within Diluvial Geology
ii. 2021, Oard & Carter, Biblical Geology 101
iii. 2009, Snelling, Earth's Catastrophic Past: Geology, Creation & the Flood

11) Websites:

i. www.answersingenesis.com
ii. www.Creation.com
iii. www.icr.org
iv. https://biblicalgeology.net/
v. https://isgenesishistory.com/
vi. https://genesisapologetics.com/