God's Grand Design

Exploring Origins in Science and Scripture

Part 10 How do we explain the geological column?

s special clas	s will run twice a month from O	ctober to May (Wednesdays at 7:00 p.m. at the ch	urch building).			
se events are s	ubject to change, check here for the la	itest)				
		Торіс	Passage	Notes	Slides	Audio Recording
10/4/23	Class 1	Why does this topic matter?	Gen. 1:1	GGD Class 1 Notes.pdf	GGD Class 1 Slides.pdf	GGD Class 1 Recording.m4a
10/11/23	No Meeting					
10/18/23	Class 2	Where did life come from?	Gen. 1:1-2:3	GGD Class 2 Notes.pdf	GGD Class 2 Slides.pdf	GGD Class 2 Recording m4a
10/25/23	No Meeting				_	
11/1/23	Class 3	Is the earth a miracle?	Gen. 1:1-2:3	GGD Class 3 Notes.pdf	GGD Class 3 Slides.pdf	GGD Class 3 Recording.m4a
11/8/23	No Meeting					
11/15/23	Class 4	Did humans evolve from primates?	Gen. 2:4-25	GGD Class 4 Notes.pdf	GGD Class 4 Slides.pdf	GGD Class 4 Recording.m4a
11/22/23	No Meeting (Thanksgiving)					
11/29/23	Class 5	How old is the earth?	Gen. 5 & 11	GGD Class 5 Notes.pdf	GGD Class 5 Slides.pdf	GGD Class 5 Recording.m4a
12/6/23	No Meeting					
12/13/23	Class 6	What about radiometric & carbon-14 dating?	Gen. 5 & 11	GGD Class 6 Notes.pdf	GGD Class 6 Slides.pdf	GGD Class 6 Recording.m4a
12/20/23	No Meeting				Contraction of the second s	
12/27/23	No Meeting (Christmas)					
1/3/24	No Meeting (New Year's)					
1/10/24	No Meeting					
1/17/24	Class 7	What about the distant starlight problem?	Gen. 1:14-19	GGD Class 7 Notes.pdf	GGD Class 7 Slides.pdf	GGD Class 7 Recording.m4a
1/24/24	No Meeting					
1/31/24	Class 8	What did Charles Darwin actually see?	Gen. 1:1-2:3	GGD Class 8 Notes.pdf	GGD Class 8 Slides.pdf	GGD Class 8 Recording.m4a
2/7/24	No Meeting					
2/14/24	No Meeting (Valentine's Day)					
2/21/24	No Meeting					
2/28/24	Class 9	Was there a global flood?	Gen. 5-9	GGD Class 9 Notes.pdf	GGD Class 9 Slides.pdf	GGD Class 9 Recording.m4a
3/6/24	No Meeting					
3/13/24	Class 10	How do we explain the geologic column?	Gen. 5-9			

2 Peter 3:5-7

For they deliberately overlook this fact, that the heavens existed long ago, and the earth was formed out of water and through water by the word of God, 6 and that by means of these the world that then existed was deluged with water and perished. 7 But by the same word the heavens and earth that now exist are stored up for fire, being kept until the day of judgment and destruction of the ungodly.



<u>Get on the class email list:</u>

josh@trc.life

Movie Night:

The Ark and the Darkness Megaplex Theatres - The District 11400 South Bangerter Highway, South Jordan, UT Wed. Mar 20 at 7:00 PM

Two Theories of Origins

View #1 – God created the heavens and the earth. (in six days, thousands of years ago)

View #2 – The heavens and earth evolved without God. (millions and billions of years ago)

Flood: There was a time when the entire world was covered with water as the result of a year-long Flood. This was a judgment from God on all human and land dwelling life. It resulted in the death of all humans (and animals) who were not in the Ark during the Flood (Genesis 6-9).

trc.life/flood

Geology: the study of the earth's physical structures, it's history and the processes that form them.

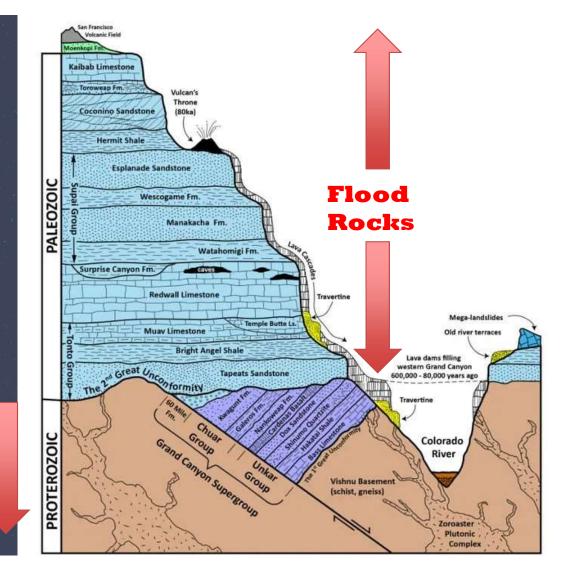


View #1 - Creation View	View #2 - Evolutionary View					
A one year Global Flood happened about 4,500	A Global Flood never happened.					
years ago.						
The earth's surface was shaped by sudden,	The earth's surface was shaped by slow, gradua					
violent, and catastrophic processes.	processes over 4.5 billion years.					
Catastrophism	Uniformitarianism					
The past (the Flood) is the key to the present.	The present is the key to the past					
Lots of water, little time	Lots of time, little water					



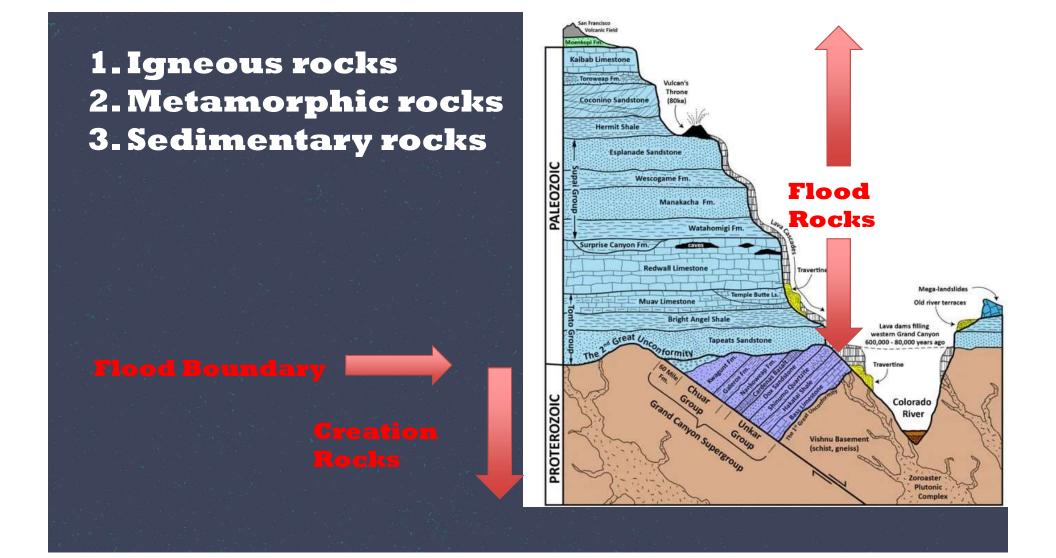
Geological Column: the representation of the layers of rock that make up the earth's crust.





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		e e	Eocene Middle	- 41.3-	
		Paleog	EOCENE Early	49.0-	
		2	Balances Late	- 55.8-	
			Late Late	- 61.0-	
Phanerozoic	2	Cretaceous	Early	- 99.6 - - 145 -	
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5	00	Jurassic	Middle Early	- 176 -	
au	10	Televile	Late	- 200 - 228 -	
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		Permian	Middle	- 260 -	
			Early Late	- 299 -	
		Pennsylvanian	Middle	306 -	
			Early	- 311 -	
		Mississinging	Late	- 326 -	
	12	Mississippian	Middle Early	- 345 -	
	Paleozoic			- 359 -	
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				- 416 -	
44.	-	Silurian	Late	- 419 -	
		TANK AND A DATE	Late Middle	- 423	
		Ordovician	Middle	- 444	
			Late	- 488 -	
		Cambrian	Middle	- 501 -	
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Part 6 What about radiometric and carbon-14 dating?



Sedimentary rock: typically composed of sediment like mud, sand and gravel that has changed into rock, primarily formed under water. **OBSERVATIONS:** 70-75% of the planet is covered with ~ 1 mile of sedimentary rock. Sedimentary rock: typically composed of sediment like mud, sand and gravel that has changed into rock, primarily formed under water.

OBSERVATIONS: 70-75% of the planet is covered with ~ 1 mile of sedimentary rock.



https://www.youtube.com/watch?v=SuNfbED MOQs&ab_channel=StMarysScience

0:07 - 2:15

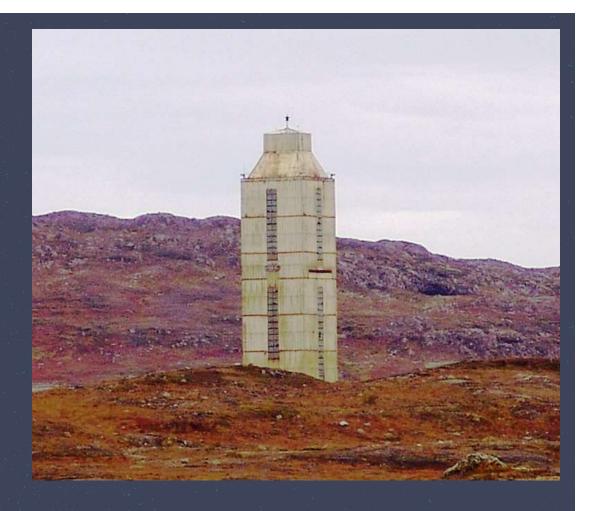
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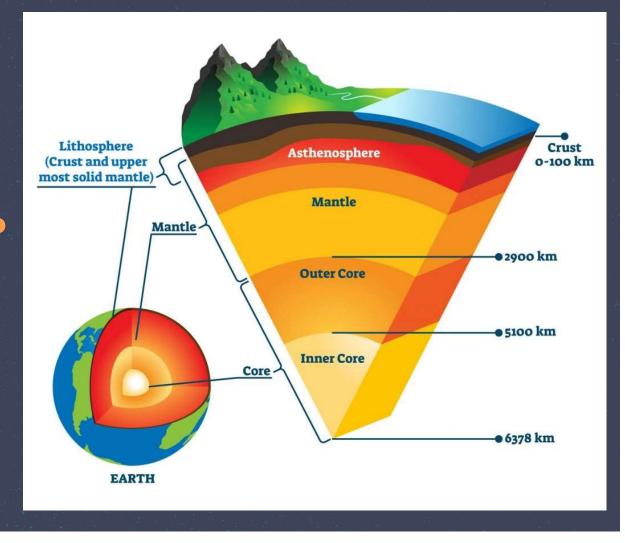
Russian Kola Superdeep Borehole **7.6 miles deep**



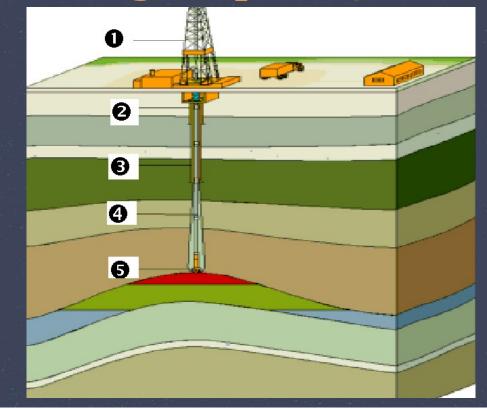
Earth's Radius: 3,958.8 miles

Deepest boring: 7.6 miles deep

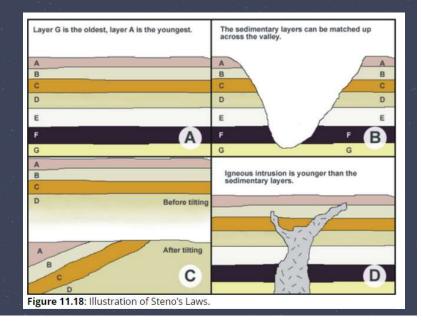
0.2%



Oil and Gas Companies Average Depth - 7,800 feet



Sedimentary rock: typically composed of sediment like mud, sand and gravel that has changed into rock, primarily formed under water. **OBSERVATIONS:** 70-75% of the planet is covered with ~ 1 mile of sedimentary rock. Geological Laws A. Super position B. Lateral Continuity C. Original Horizontality D. Cross-cutting relationships



Utah and Colorado

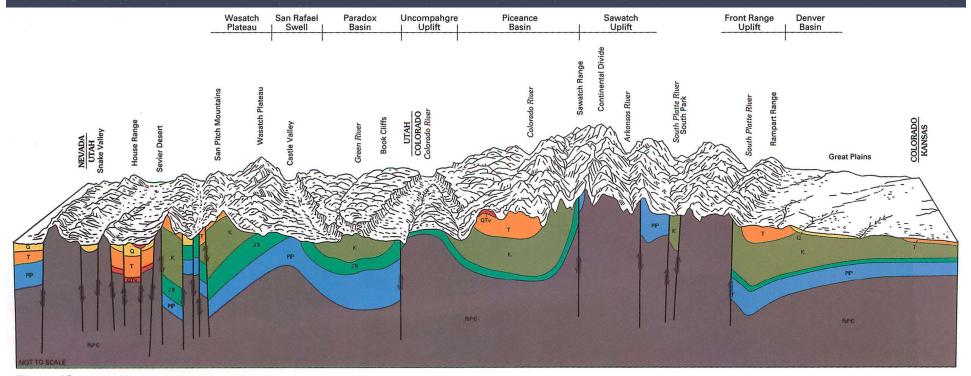
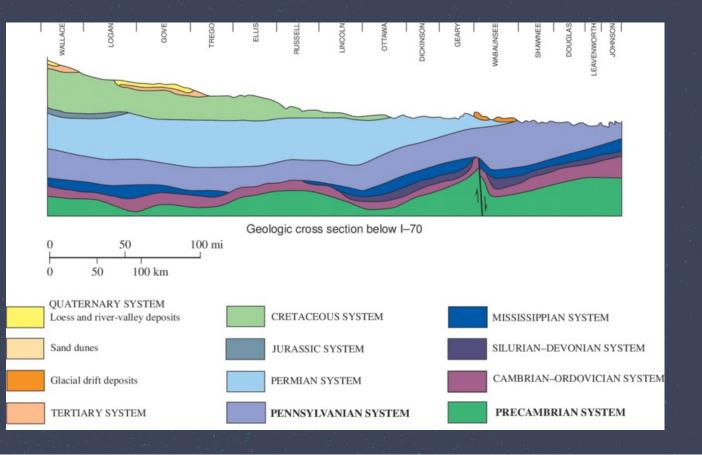
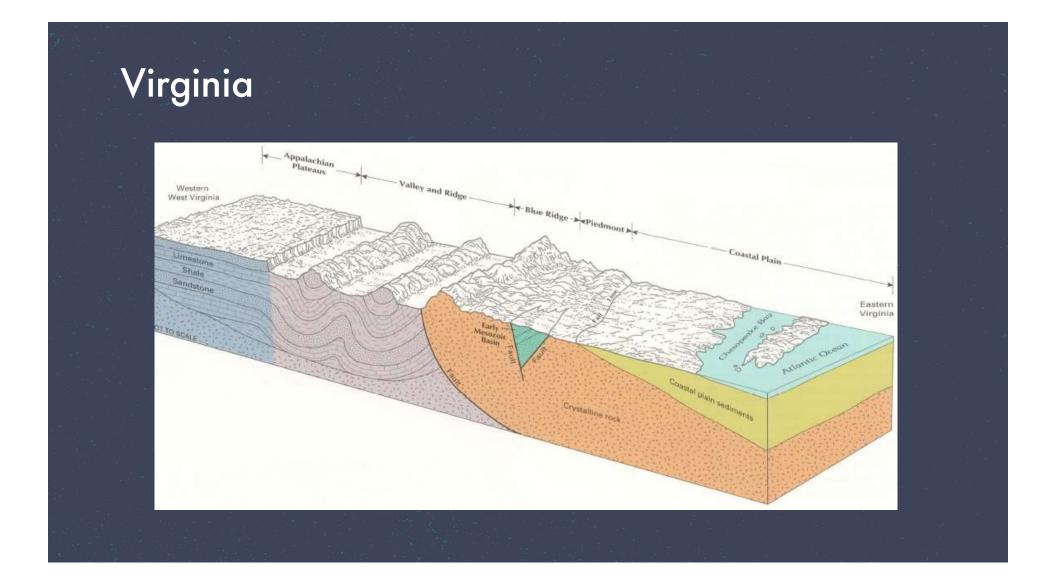


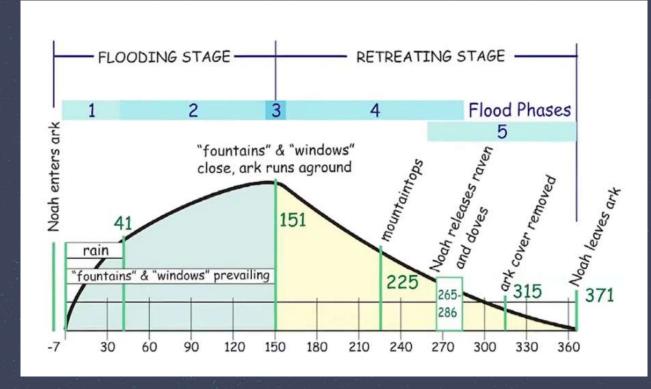
Figure 13. This idealized block diagram of northern Utah and Colorado shows the configuration of the land surface and its relation to the generalized subsurface geology.

Kansas



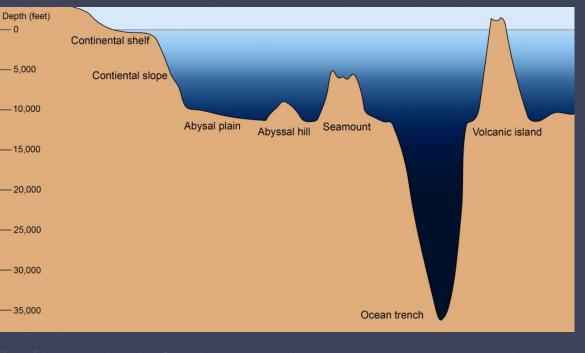


Global Flood Model (Genesis 6-9)



Is there enough water? 9,000 feet of water!





"Were the crust of Earth to be leveled-with great mountain ranges like the Himalayas and ocean abysses like the Mariana Trench evened out-no land at all would show above the surface of the sea. Earth would be covered by a uniform sheet of water-more than 10,000 feet deep! So overwhelming the ocean seems to be."

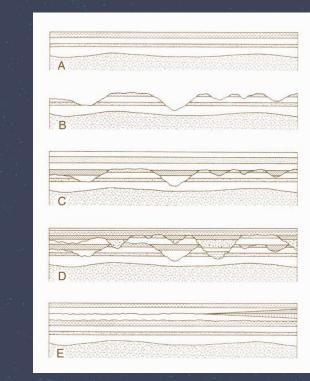
– Jacques Cousteau

https://www.youtube.com/watch?v=UM82qxx skZE&t=701s&ab_channel=IsGenesisHistory%3

4:22-11:29

F

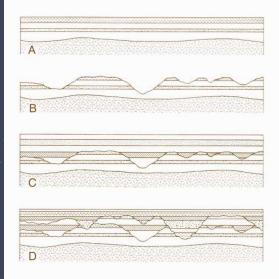
Evidence for a Global Flood: A. Lack of erosion between layers.



Canyonlands National Park



Evidence for a Global Flood: A. Lack of erosion between layers.







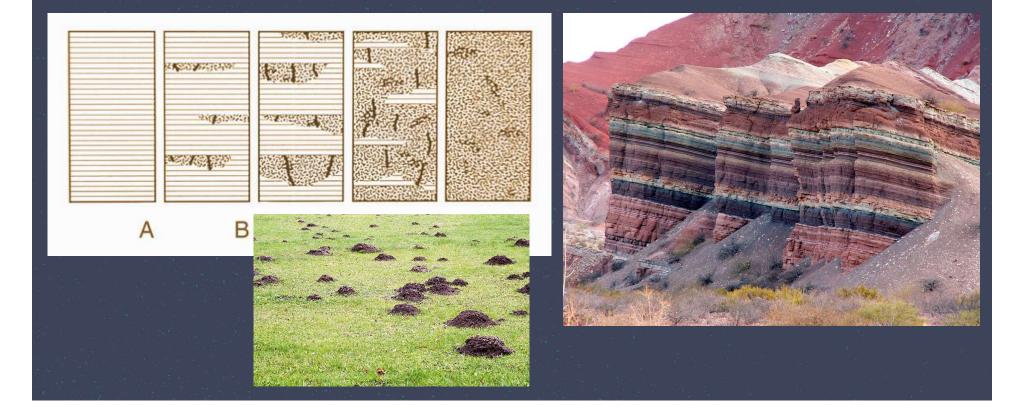
Hill of Seven Colors in Argentina Notice the "knife edge" between the layers.



Chocolate Cliffs



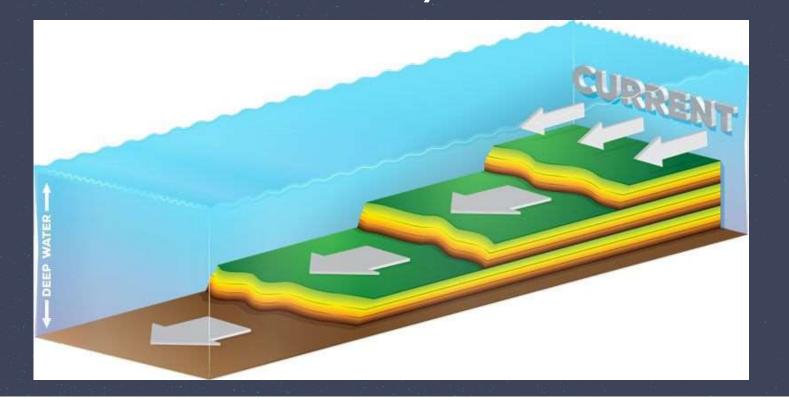
The lack of <u>bioturbation</u> between the layers. (the disturbance of the layers by living organisms)

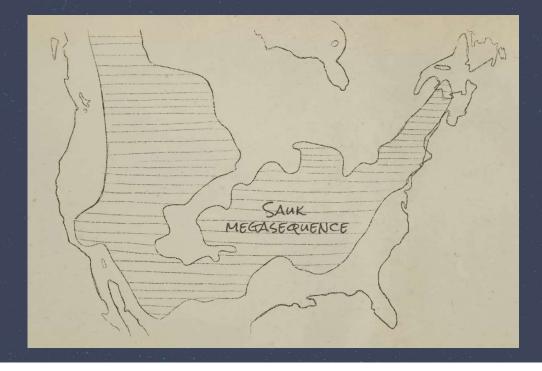


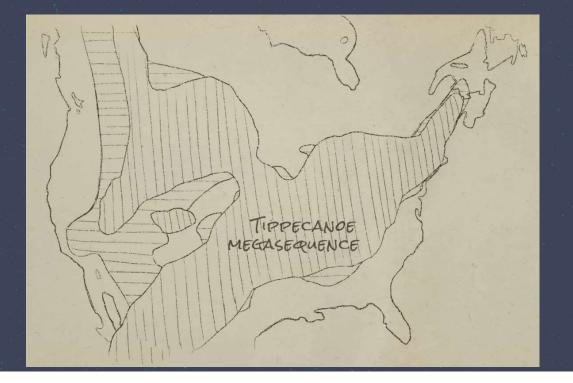
Grand Canyon National Park

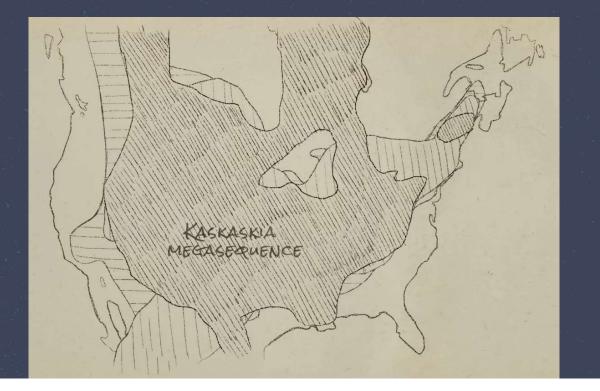


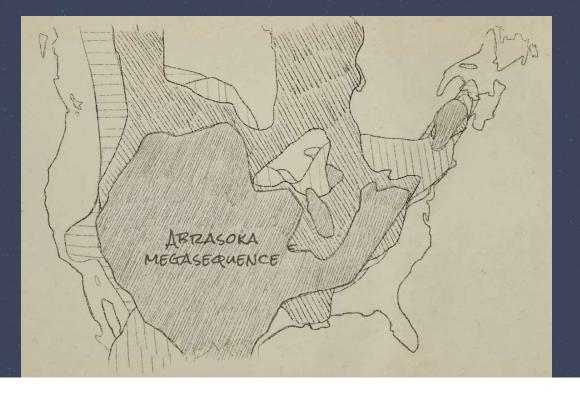
Layers deposited rapidly in the flood with no time for erosion between layers.



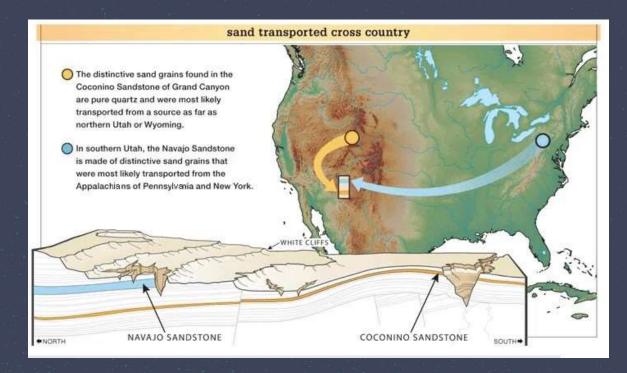




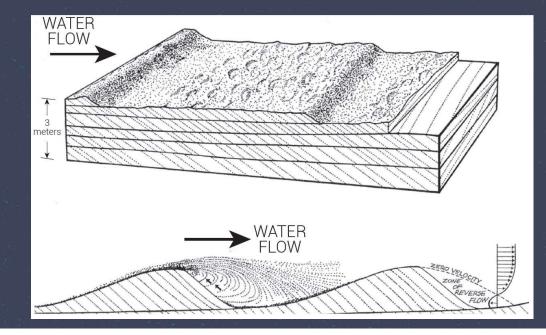








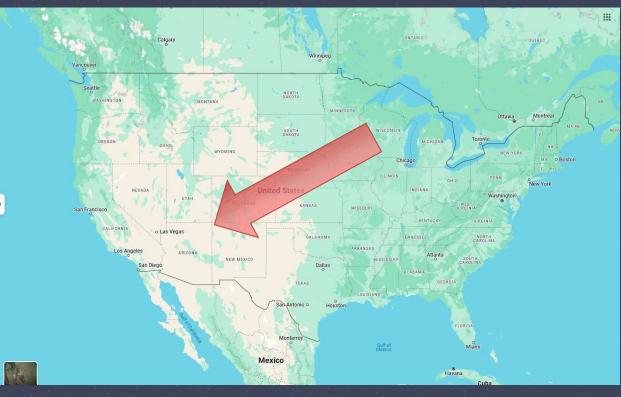
Evidence for a Global Flood: C. Cross bedding.



Evidence for a Global Flood: C. Cross bedding.







Arizona Geology Survey Visualizing Grand Canyon Stratigraphy <u>Sep. 2021</u>



Coconino Sandstone (water or arid deposit?)

GEOLOGIC **LITHOLOGIES** TIME Unit thicknesses not drawn to scale Lateral thickness changes are not depicted EON Era west -- east Little Colorado River 4 Elves Chasm Qsu Pleistocene to Recent ◄ Nankoweap ◀ Surprise Valley *0.001 Ma / Little Spring Basalt *0.001 Ma / Sunset Crater Qb *0.071 Ma / SP Mountain *0.073 Ma / Vulcans Throne 0.7 to 0.1 Ma / Intracanyo 10.78 Ma / 159-mile dikes QTb 3.7 Ma / Mount Trumbull *4.41 Ma / Sandy Point Tb 6.0 Ma / Shivwit 9.17 Ma / Red Butte *5.97 Ma / Hualapai Limestone 5.9 Ma / Fortification Hill Basalt Eocene to Late Miocene (~50 Ma to 5.9 Ma) Tsv *15.8 Ma / basal Bidahochi Fm *18.5 Ma / Peach Springs Tuff H Let FC Lees Ferry Red Butte ١., E Mog Wupatki Rm < Cedar Mo Middle Res 5-0 North Rim / South Rim Grand Falls Pk / [∪]@@ Woods Ranch Pt TP ()@ Brady Canyon \$ 19 Pc 000 Q Dripping Spring

Ph

#

ROCK UNITS

Surficial Deposits, undivided (Qsu)

President to Recent. fluvial sediment, spring-related travertine and tufa, eolian sand deposits, colluvium, talus, and landslides // stream channels, springs, slopes, mckfalls landslide

Basaltic Volcanics (QTb)

• Micromet & Holiacome (>9 Mat to 0.01 Ma) baselic lowa flows, chief comes, and UT and the Ulinkaret volcanic field (3.7 Ma to 0.001 Ma). San Francisco volcanic field (8.9 Ma to 0.401 Ma), hopi Buttes volcanic field (8.7 Ma to 4.2 Ma), Mount Floyd volcanic field (6.8 Ma to 6.4 Ma), Shirwits Plateau basalts (9.1 Ma to 1.4 Ma), and Grand Wash basalts (>4.4 Ma) // mostly Ho alian- to Strombolian-style eruption

Tertiary Sedimentary & Volcanic Rocks (Tsv)

Excerne to Litter mixednet (~> 0 mit 0.5 × mit) filmal and facasitine deposits, and they follit ashflow and basaltic lava flows predating the modern Grand Campon (Long Point lakebeds, Musik Mountain and West Water Formations, Buck & Dec Complemente, Blue Mountain and Rose Well-Facilier Well gravels, Peach Springs TIII (18 SAM) and basaltis (19 s4M kt 0.14 Ads), Shrwits and Separation Campon gravels, Muddy Corek Formation, Bidahochi Formation (16 Ma to 5.9 Ma) // alluvial fans, braided streams, lake

Chinle Formation (Tcc)

► Late Triassic / Norian (~227 Ma to 209 Ma) conglomerate, sandstone, mudstone, and volcanic ash, locally containing vertebrate fossils and abundant petrified wood fragments (Araucaryoxylon arizonicum) // arid coastal plain, northwest-flowing braided streams and meandering streams, flood plains, lakes

Moenkopi Formation (Tkm)

Middle Triassic / Anisian (~245 Ma to 240 Ma mudstone, sandstone, evaporite, and carbonate rocks // arid coastal plain, sabkha, tidal flat. shallow marine shelf (W)

Kaibab Formation (Pk)

Late Early Permian to Middle Permian / Roadian (272 Ma to 269 Ma) fossiliferous limestone, dolomite, sandstone, and chert // open to restricted shallow marine shelf, lagoon, sabkha > correlates with: Concha Limestone (southeastern AZ), Rain Valley Fo stem AZI, Phym Garden Valley Formation (NV), Road Canvon Formation (TX

Toroweap Formation (Pt)

Early Permian / Kungurian (284 Ma to 272 Ma) sandstone, evaporite, limestone, and dolomite // open to restricted shallow marine shelf, tidal flat, sabkha, eolian dunes White Rim Sandstone member of the Cutler Formation (southeastern UT)

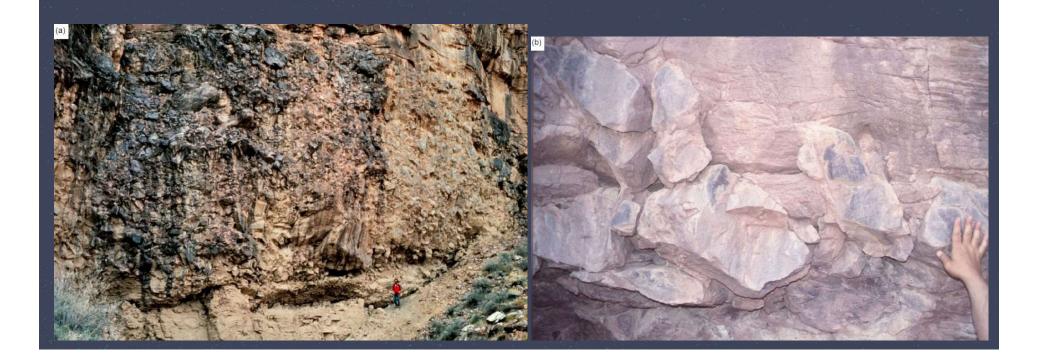
Coconino Sandstone (Pc)

Early Permian / Kungurian (284 Ma to 272 Ma) cross bedded quartz arenite (sandstone) // arid coastal sand dunes > correlates with: Schnebik Hill Formation (central A7). De Chelly Sandstone (northeastern A7). Glorieta Sandstone (northwestern NM) or thwestern NM), White Rim Sandstone member of the Cutler Formation (southeastern UT)

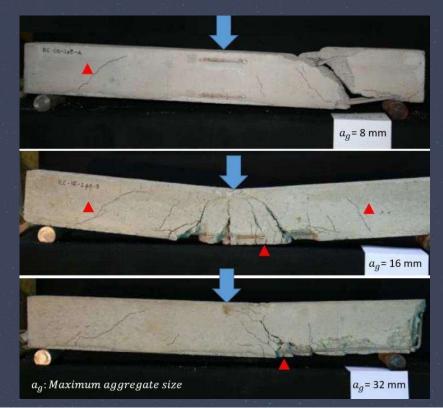
Hermit Formation (Ph)

Early Permian / Late Sakmarian & Artinskian (292 Ma to 284 Ma) mudstone and sandstone (redbeds) // arid coastal flood plains rmation (northwestern AZ), Earp Formation (southeastern AZ), Abo Formation (NM)

Evidence for a Global Flood: **D. Large cobbles and boulders.**



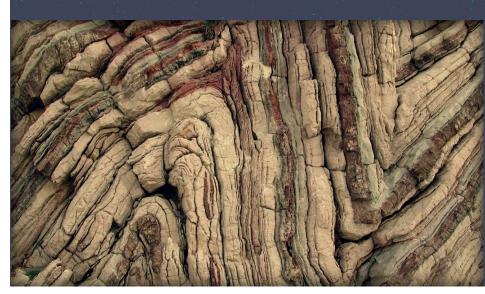
Evidence for a Global Flood: E.Soft sediment deformation.

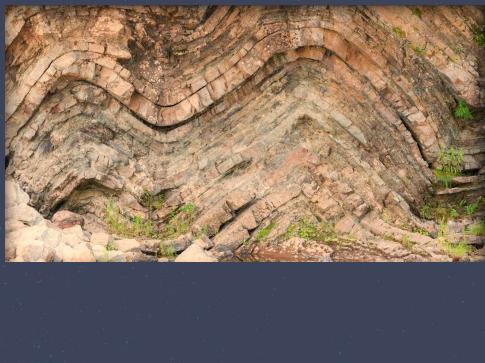


Evidence for a Global Flood: E.Soft sediment deformation.



Evidence for a Global Flood: E.Soft sediment deformation.





Evidence for a Global Flood:

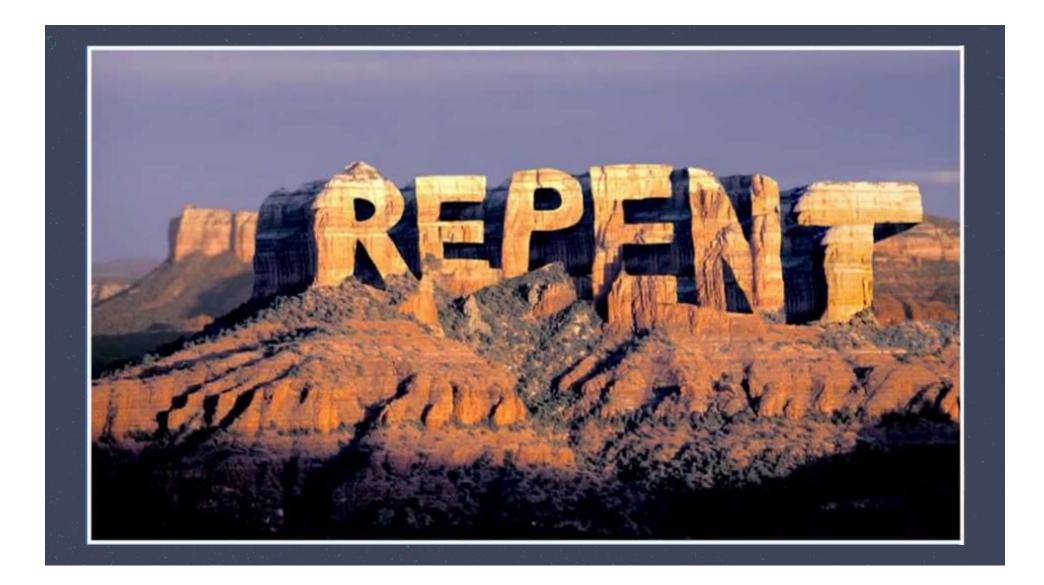
A. Lack of erosion between layers.
B. Continental wide layers.
C. Cross bedding.
D. Large cobbles and boulders.
E. Soft sediment deformation.

"I confess I soon lose my way when I try to follow those who walk delicately among 'types' and allegories. A certain passion for clearness forces me to ask, bluntly, whether the writer means to say that Jesus did not believe the stories in question, or that he did? When Jesus spoke, as of a matter of fact, that "the Flood came and destroyed them all," did he believe that the Deluge really took, place, or not?"



Luke 17:26-30

"Just as it was in the days of Noah, so will it be in the days of the Son of Man. 27 They were eating and drinking and marrying and being given in marriage, until the day when Noah entered the ark, and the flood came and destroyed them all. ... 30 so will it be on the day when the Son of Man is revealed.



Discussion Questions:

- 1. What did you learn tonight? What stood out to you?
- 2. Have you considered the theological implications of the geological column?
- 3. Which evidence for the global flood did you find the most compelling? Why?
- 4. In what ways do you see our society distracting themselves, to avoid the reality of Jesus's return and the final judgment? What does being awake and sober look like in hopeful expectation of Jesus' return?
- 5. Have a few people pray.

God's Grand Design

Exploring Origins in Science and Scripture