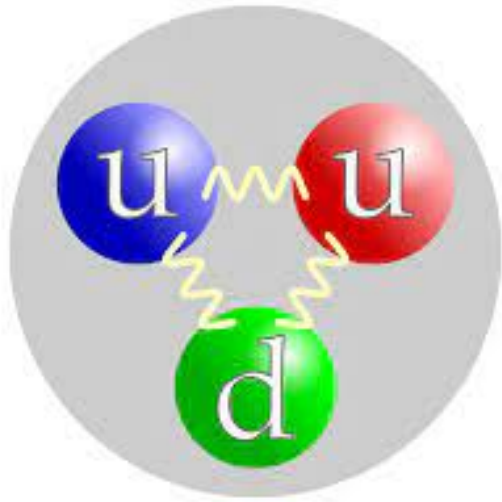


# Quarks to Quasars

Or science for creationists  
VII. Earth and Geology





# Outline/Review

- ▶ I. Introduction – importance, improbability, theory flaws
- ▶ II. Quarks and Atoms – Big Bang, string theory, atoms, relativity
- ▶ III. Molecules and Cells – many complex systems but great order
- ▶ IV. Cells=Life – abiogenesis/cell formed, division, genetics
- ▶ V. Life to Man – many huge changes, no transitional forms, man special
- ▶ VI. Other creeping things – many special design; complex and improbable
- ▶ VII. Earth and Geology
  - ▶ Fossil record and geological strata misconceptions
  - ▶ Young Earth features
  - ▶ Design
  - ▶ Findings consistent with Flood



# Broad principles in studying science

- ▶ **Wrong assumptions**/biases commonly lead to wrong conclusions.
- ▶ Hierarchy of (un)certainty in science:
  - ▶ **facts, provable theories, principles, hypotheses, thoughts, opinions**
- ▶ Things are **more complex than portrayed**
- ▶ ?More faith to believe in evolution than creationism
- ▶ Knowledge is power (F Bacon, *Meditations Sacrae*, 1597)
  - ▶ we should strive to know what we can so as to avoid being marginalized or intimidated by “experts”
    - ▶ John 8:32 “and ye shall know the truth and the truth shall make you free”
    - ▶ Prov 24:5 - A wise man is strong; yea, a man of knowledge increaseth strength.



# Recurring “proof” themes (evaluate these throughout)

- ▶ Mathematical improbabilities
- ▶ Violations/misapplications of logic and scientific principles
- ▶ Supernatural design (vs results of natural selection)
- ▶ Contradictions of Scripture/theological bases



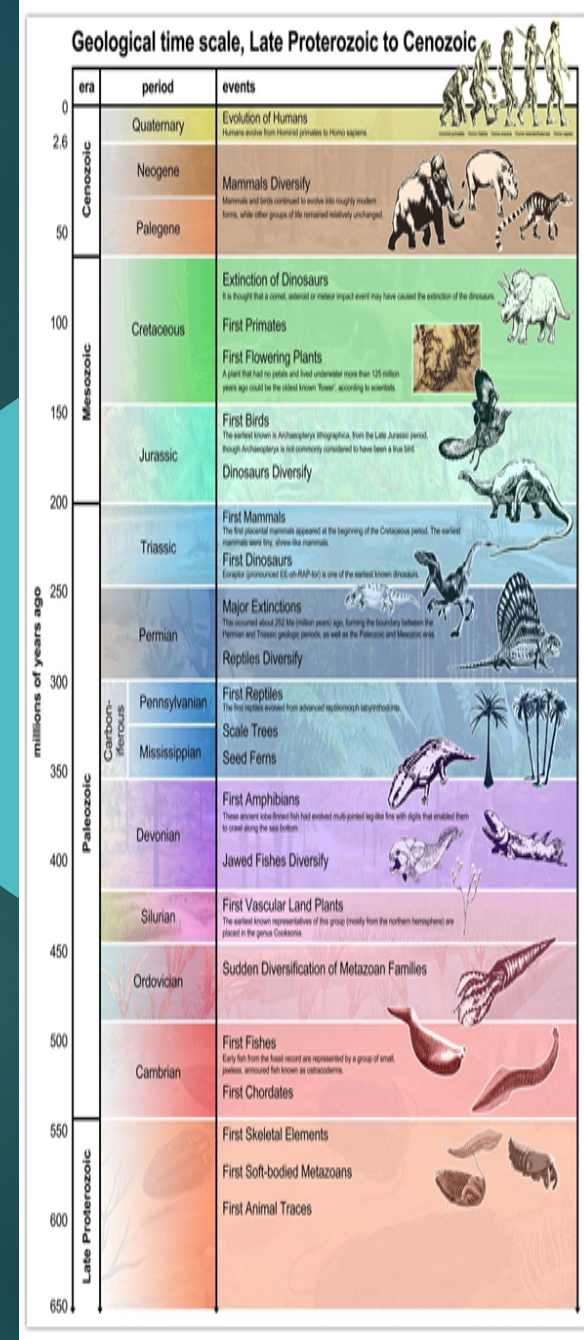
# Purpose of this Section

- ▶ Describe the misconceptions of strata
- ▶ Demonstrate evidences for young earth
  - ▶ Dating methods – radio dating, and others
    - ▶ Contradictory (to old earth) findings
  - ▶ Recent things that give appearance of being old
  - ▶ Sediments, etc
  - ▶ Violations of logic
- ▶ Evidences of design – hydrological and other cycles, atmosphere
- ▶ Examples of where Flood better explains findings
  - ▶ Ice Age, continental drift



# Misconceptions about the Geologic Columns (Austin SA; ICR)

1. Actually, geologists constructed before 1860 by creationists (Sedgewick, Murchison, Coneybeare) to affirm catastrophism (!)
2. “periods” and “eras” divisions were added later to the “column”
3. The strata are not universal; many missing in many areas
4. Strata are not always in the same order
5. The rock layers are not “diagnostic” of systems
6. Strata are unreliable for dating
7. Examples show strata can form quickly
8. Ages cannot be assigned reliably
9. There is much extrapolation to depict what was present
10. There is not a logical fossil progression to depict “amoeba to man”





# Confessions of evolutionist geologists

- ▶ Eldridge (Am Museum of Nat Hx)- “...a problem: if we date the rocks by their fossils, how can we then turn around and talk about patterns of evolutionary change through time in the fossil record?”
- ▶ Rastall (Cambridge Univ geologist) – “It cannot be denied...geologists are arguing in a circle...”
- ▶ Lammerts (Christianity Today): “I have in my own files a list of over 500 cases that attest to a reverse order...”



# Fossils

- ▶ What? Preserved remains, impression of a once living thing
  - ▶ In amber, rock, petrified wood, sediments, etc
  - ▶ Eg. Hair, bones, shells, exoskeletons, microbes, coal, imprints
- ▶ Paleontology: study of fossils
- ▶ Formed by being buried, mineralization excludes water /air, commonly under high pressure (as in rapidly being buried)





# Purpose of this Section



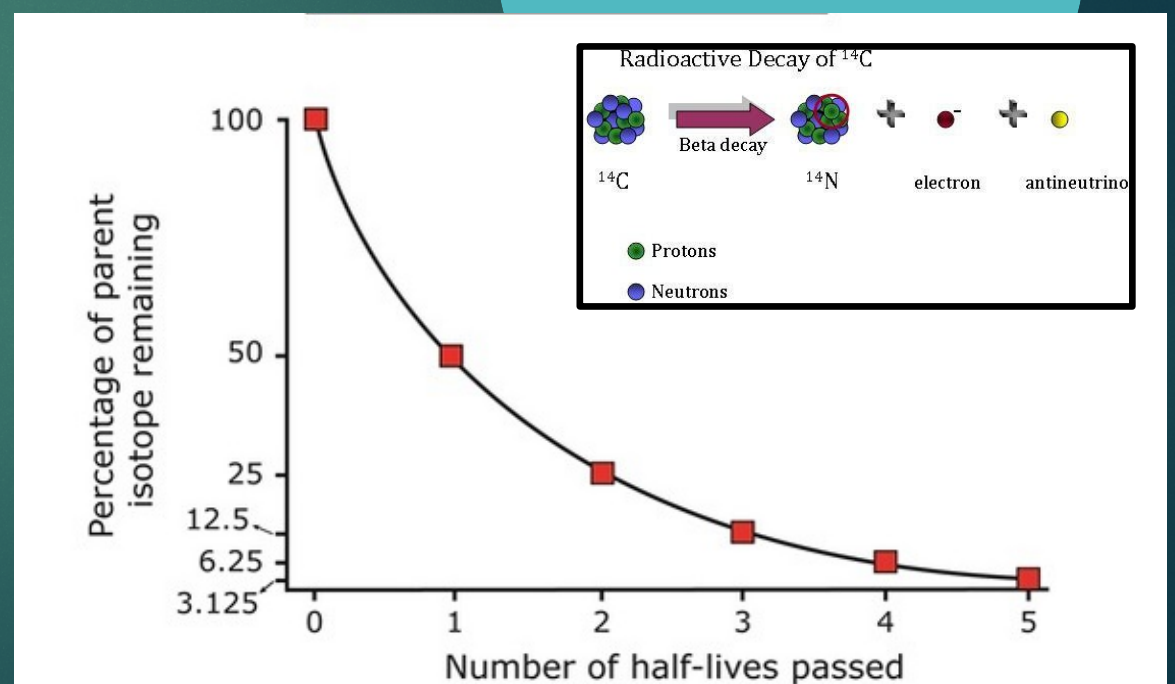
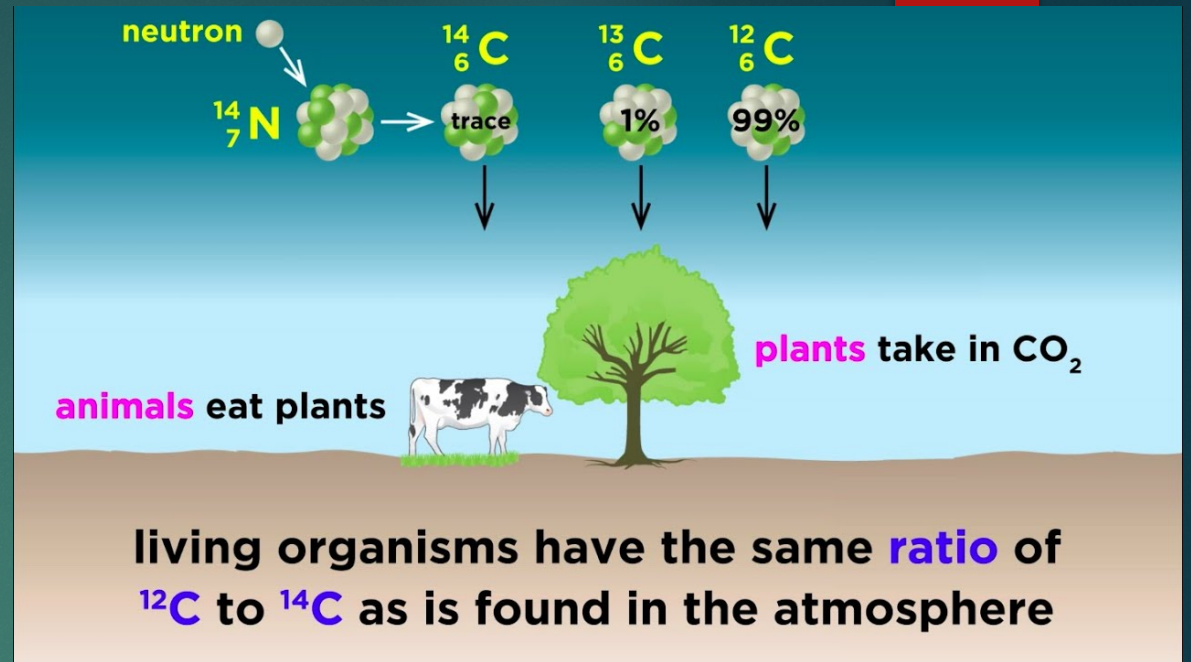
- ▶ Describe the circular reasoning of strata
- ▶ **Demonstrate evidences for young earth**
  - ▶ Dating methods – radio dating, and others
    - ▶ Contradictory (to old earth) findings
  - ▶ Recent things that appear to be old
  - ▶ Sediment data
  - ▶ Violations of logic
- ▶ Evidences of design – hydrological and other cycles, atmosphere
- ▶ Examples of where Flood better explains findings
  - ▶ Ice Age, continental drift



Previously...

# Radiometric Dating

- ▶ Libby (Nobel 1960) discovered
- ▶ Cosmic rays make  $C_{14}$  out of  $N_{14}$ 
  - ▶ [constant], but only about  $10^{-12}$  is  $C_{14}$
- ▶ All isotopes of C incorporated in plants (via  $CO_2$ ) then humans (food ingestion)
- ▶ Once dead, the  $C_{14}$  decays back to  $N_{14}$ 
  - ▶ (beta decay – loss of electron)
  - ▶  $A(t) = A_0 e^{-kt}$  [t =  $-\frac{1}{k}(\ln A - \ln A_0)$ ]
- ▶  $T_{1/2}$  is how long for  $1/2$  to decay
- ▶ for  $C_{14}$  is only 5780 yrs, so only decent up to about 30K yrs





# Older radiometric dating systems (for rock)

- But how are these calibrated?
  - Ur "branching ratio" – but 50% errors common between samples/systems
  - Many examples of gross discrepancies
- Excess Ar in many samples (inert gas so Ar-K mix should be more accurate)

But there is more:

- Leaching out – eg Radon gas (Ur)
- "free neutron capture" demonstrated (backwards)
- Neutrinos can alter some decay rates
- Other external sources of elements

Name of Method	Age Range of Application	Material Dated	Methodology
Radiocarbon	1 – 70,000 years	Organic material such as bones, wood, charcoal, ...	Radioactive decay of $^{14}\text{C}$ in organic matter after removal from ...
K-Ar dating	1,000 – billion of years	Potassium-bearing minerals and glasses	Radioactive decay of $^{40}\text{K}$ in rocks and minerals
Uranium-Lead	10,000 – billion of years	Uranium-bearing minerals	Radioactive decay of uranium to lead via two separate decay chains
Uranium series	1,000 – 500,000 years	Uranium-bearing minerals, corals, shells, teeth, $\text{CaCO}_3$	Radioactive decay of $^{234}\text{U}$ to $^{230}\text{Th}$
Fission track	1,000 – billion of years	Uranium-bearing minerals and glasses	Measurement of damage tracks in glass and minerals from the radioactive decay of $^{238}\text{U}$
Luminescence (optically or thermally stimulated)	1,000 – 1,000,000 years	Quartz, feldspar, stone tools, pottery	Burial or heating age based on the accumulation of radiation-induced damage to electron sitting in mineral lattices
Electron Spin Resonance (ESR)	1,000 – 3,000,000 years	Uranium-bearing materials in which uranium has been absorbed from outside sources	Burial age based on abundance of radiation-induced paramagnetic centers in mineral lattices
Cosmogenic Nuclides	1,000 – 5,000,000 years	Typically quartz or olivine from volcanic or sedimentary rocks	Radioactive decay of cosmic-ray generated nuclides in surficial environments
Magnetostratigraphy	20,000 – billion of years	Sedimentary and volcanic rocks	Measurement of ancient polarity of the earth's magnetic field recorded in a stratigraphic succession
Tephrochronology	100 – billions of years	Volcanic ejecta	Uses chemistry and age of volcanic deposits to establish links between distant stratigraphic successions

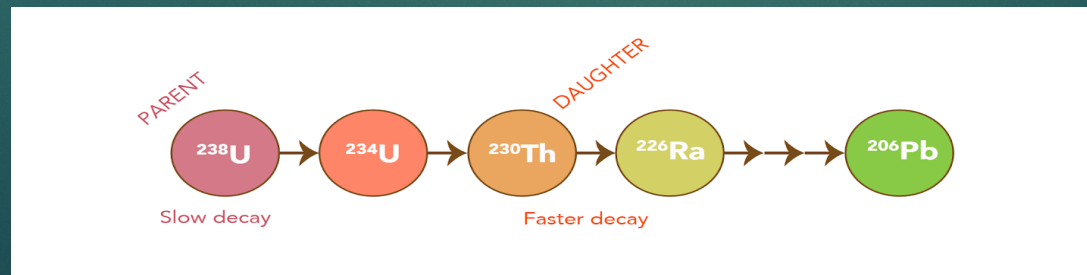
**Table 1.** Comparison of commonly used dating methods.

Again, not "rock solid" accurate



# Most highly regarded isotopic long dating system (to about 500K yrs: Ur-Th-Pb)

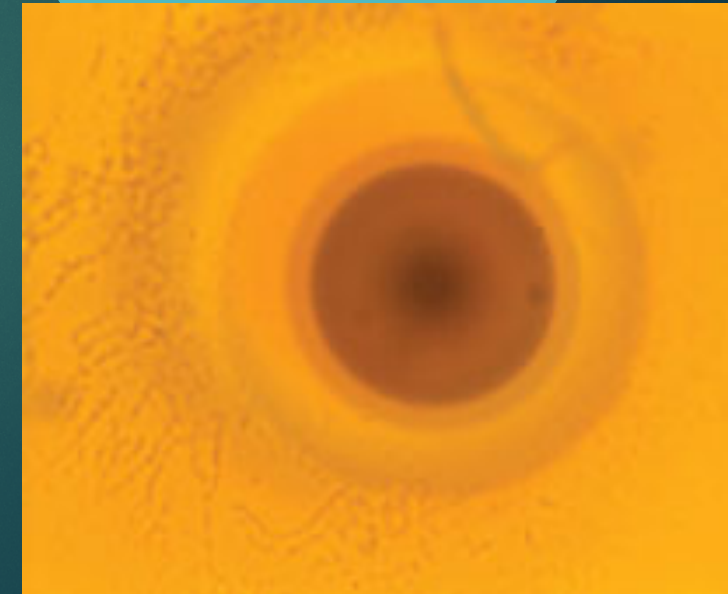
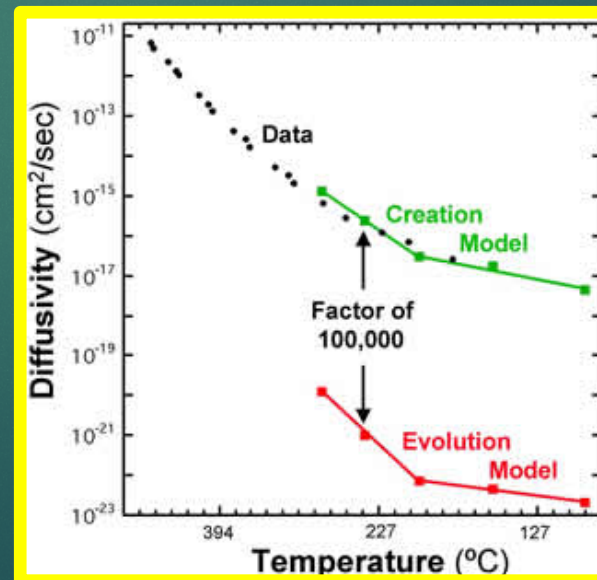
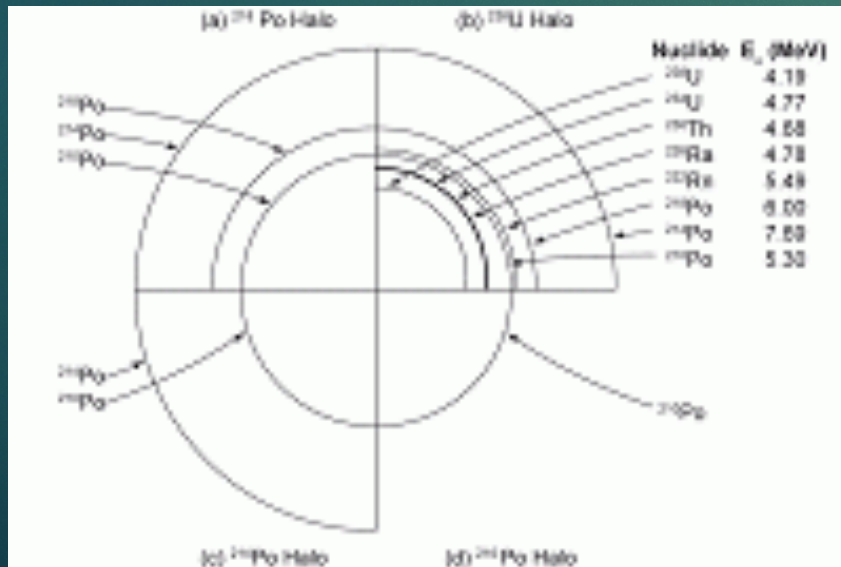
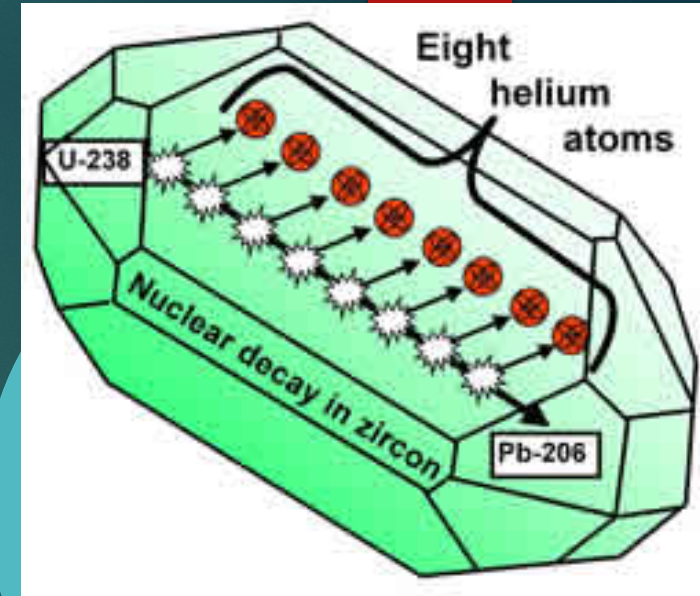
- ▶ Grains of zircon ( $\text{ZrSiO}_4$ ), baddeleyite ( $\text{ZrO}_2$ ), titanite ( $\text{CaTiSiO}_5$ ) and/or monazite ( $\text{ThPO}_4$ )
- ▶ Crushed, zircon grains separated (heavy liquid, and other)
  - ▶ (alpha decay, loss of He nucleus)
- ▶ Crystals evaluated with techniques that use narrow ion beam to allow mass spectrometers (0.1% detection) to measure ratios of vaporized isotopes
- ▶ BUT: Assumption is no radiogenic Pb natively; all from Ur-Th decay
  - ▶ But, has Pb has been demonstrated to diffuse (would cause overestimates)
  - ▶ Examples of much older ages than in rocks (metamorphic rocks)
- ▶ Thus, not "rock solid" accurate as made out to be





# Polonium Radiohaloes from Uranium decay (He) in Zircon

- ▶ Alpha particles retention – haloes in zircon crystal (originate when igneous rock forms)
  - ▶ Diffusion after radioactive decay of Ur, Po => 8 He atoms
  - ▶ He should have been diffused out after proposed billions of yrs
    - ▶ Rate/distance is more c/w 6000 yrs rather than millions



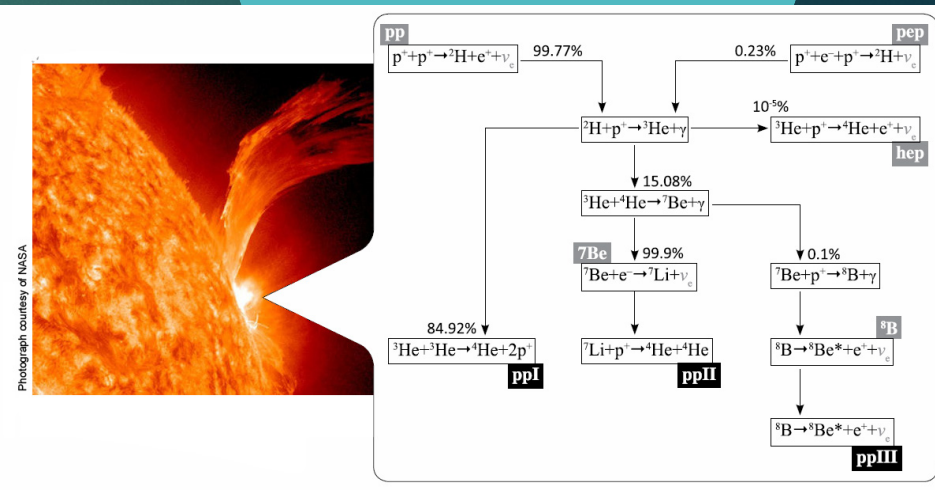
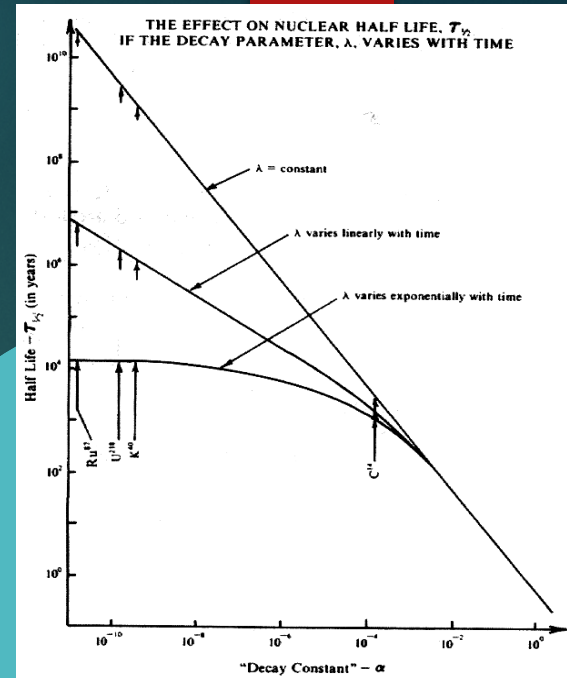


Remember, if assumptions are wrong, conclusion likely is also...

# Radiometric Dating

- ▶ Calibrated to radioactive decay of unstable parent isotopes to “daughter” isotope
- ▶ Assumptions (not infrequently false):
  - ▶ Closed system
  - ▶ No “daughter” species initially
  - ▶ Constant decay rates (isochron model-?true)
- ▶ But temperature, pressure, etc can influence
  - ▶ Neutrinos? Increased during solar flares, etc
- ▶ Can only reasonably distinguish up to about 5 half-lives, so Carbon only recent things; others for older

So, half lives could have been shorter previously, meaning over estimates now



$\nu_e$  = electron neutrino.



# New wood in “old” rock deposits

- ▶ Cripple Creek, CO
  - ▶ Premier gold mining district of CO, 23 M oz since 1891
  - ▶ Found in rocks a/w a small volcanic complex 32M yr by K-Ar dating.
  - ▶ However, a specimen of carbonized fossil wood was found within it, 3000 ft deep, that was  $C_{14}$  dated to 41K yrs. Multiple different testing agencies confirmed
  - ▶ Contamination sources ruled out





# Other young in “old” findings- DNA/organic

- ▶ Uniformitarianists theory on how could protein/DNA survive in fossils?
  - ▶ microbes, biomineral adhesion, clay mineral adhesion, residuals in measuring devices – all refuted
  - ▶ TOAST model: chemical crosslinking/polymers- several contradictions
- ▶ 100Myo bee encased in amber (trapped in tree resin) with parasites/pollen
- ▶ 40 M yr old stingless bee dissected from amber; bacterial spores grown and DNA same as modern bacteria in bees (“evidence for independent evolution”)
- ▶ Magnolia leaf in 17 M yo in Idaho shale
- ▶ T rex thighbone 70 M yr - amino acid sequencing of protein; more resembles several centuries age
- ▶ Fossil Butte Nat Mon, Utah; many fossil forms with cartilaginous skeletons preserved (should have decayed quickly)
- ▶ England – bacterial DNA in salt crystals (up to 425 M yo); <2% different from modern bacteria

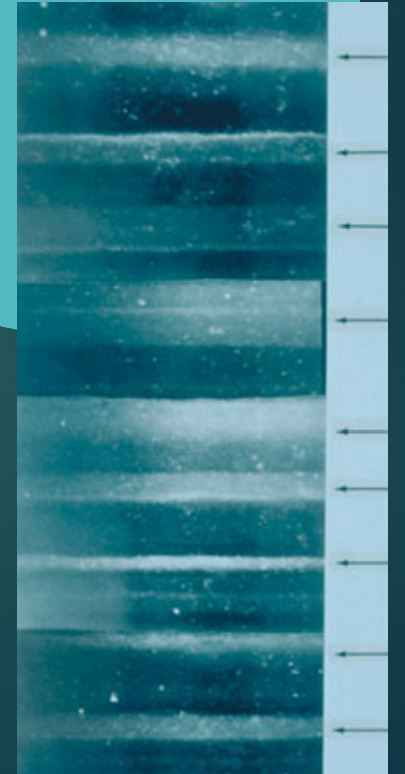


85 reports of soft (organic) tissues in fossils indicating young age: Expert Rev Proteomics 16(11-12):881



# Other dating system issues

- ▶ Teklites – glass meteors – extremely wide margin of dating
- ▶ BTW, the 4.7B y age of Earth is based on meteorite dating with the assumption of same time scale of Earth's development
- ▶ Dendrochronology (Tree ring counting) - oldest perhaps to 5000 yrs (E Schulman, Bristlecone pine in CA, "**Methuselah**)
  - ▶ Sequoia trees "only" 3200 yrs; studies, (cones could have survived flood)
- ▶ Ice layers - Oxygen isotopes, acidity, particulates – can vary and make multiple layers, etc





But....

# Demonstrably young ice sheets

- ▶ Secular view: millions of years
  - ▶ Initially, in Greenland, to 3000m – bedrock; deeper in Antarctica
  - ▶ Some dating inferences from drilled ice cores
    - ▶ Thinner ice layers in deeper layers; “annual layers not necessarily
    - ▶ tephra (ash and glass fragments deposited by volcanos) more dense superficially
- ▶ But shorter, more rapid formation (creationist view) is c/w this AND no signs of melting in deep layers (as high pressure of accumulated weight would predict)
- ▶ Fits with more rapid snowfall after Flood
- ▶ Found WW2 planes buried 50' deep! Could not be too old!





# Other evidences c/w younger Earth

- ▶ Lava- at current accumulation rates ( $0.8 \text{ km}^3$ ), should be=volume of crustal continents by 4.7B y
- ▶ Salt in ocean- accumulation rates would suggest only about 50 My
- ▶ Solids in the waters – proportions c/w younger
- ▶ **Coral reefs** – too thin and unbranched to be more than several thousand yrs old
- ▶ Ocean sediments/ripples – c/w shorter time
- ▶ **Bog lands** – sediments c/w shorter
- ▶ Comet amounts – should be melted by now





Many examples of rapid formation  
of things that look old...





# Stalactite (speleothem) growth formation in 150 yrs (instead of millions)

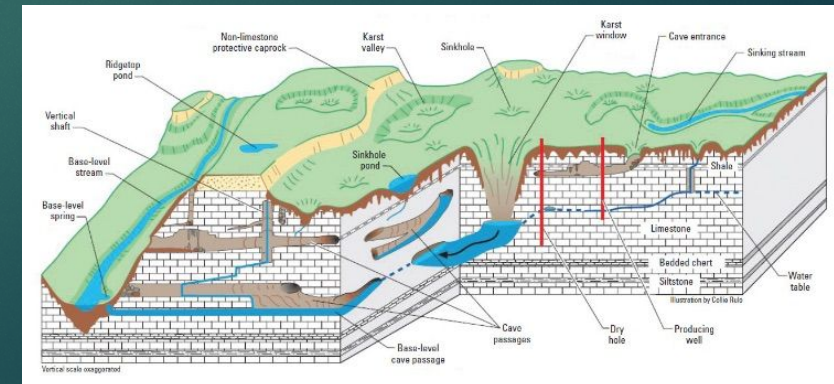
- ▶ Luray Caverns , VA
- ▶ Saturation of the calcium salt can greatly alter rate of formation
  - ▶ Sequoyah Caverns, south of Chattanooga at Valley Head, Alabama; glass barrier placed in 1977; “grew” 1’/year
  - ▶ Raccoon Mountain, just west of Chattanooga, Tennessee- drainage tunnel blasted through limestone- rapid formation couple decades as water discharge dissolved the limestone
  - ▶ Western Australia- Jenolan Caves in New South Wales- 3mm in 33 years; couple different places
  - ▶ Lincoln Memorial – 5 feet long in 45 yrs after being built
  - ▶ Many bridges (eg RR in Philadelphia, 1’ in 56yrs)
  - ▶ Yellowstone hot springs, 1’/yr





# (Rapid) cave formation

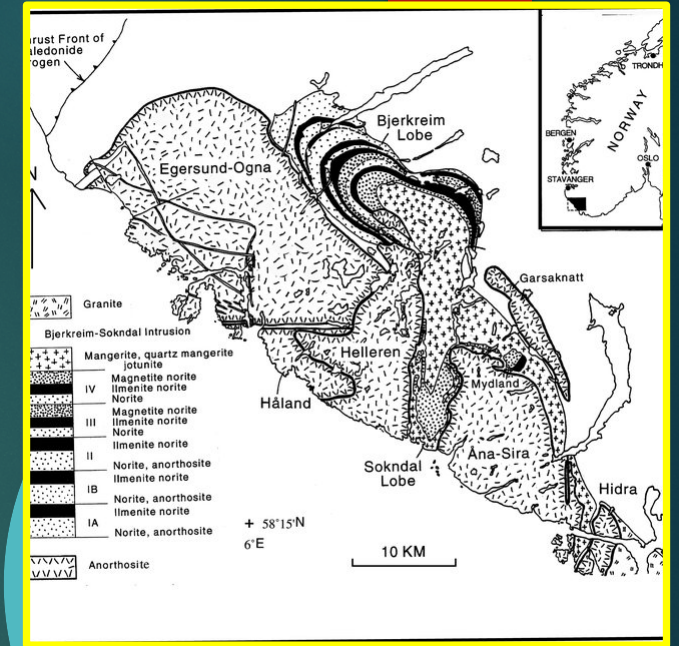
- ▶ Epigene type- Carbonic acid dissolving from top down a limestone formation (a "karst")
  - ▶ thought to be responsible mechanism for 90% of caves (and speleothems)
- ▶ Hypogene - Sulfuric acid possibly aided by microbes dissolving from below upwards (oxidation of  $H_2S$  could be plant and animal decay at end of Flood)
  - ▶ demonstrated 1970; estimate mechanism for 10% caves but could be more
- ▶ Formation from ascending hydrothermal water observed
  - ▶ Eg. [Carlsbad Caverns, NM](#)





# Rapid metamorphism of Rocks

- ▶ Evolution theory predicts many millions yrs
  - ▶ Eg marble, schist, quartzite, slate from sedimentary/igneous under high pressure
- ▶ **Bergen area of Norway** –igneous rocks transformed in to granulites (<1 My)
  - ▶ But, could be much shorter – different temp, inaccurate dating
- ▶ **Connecticut** – regional metamorphism of schists





A mechanism can even be posited...

# Young Earth- appearances of age

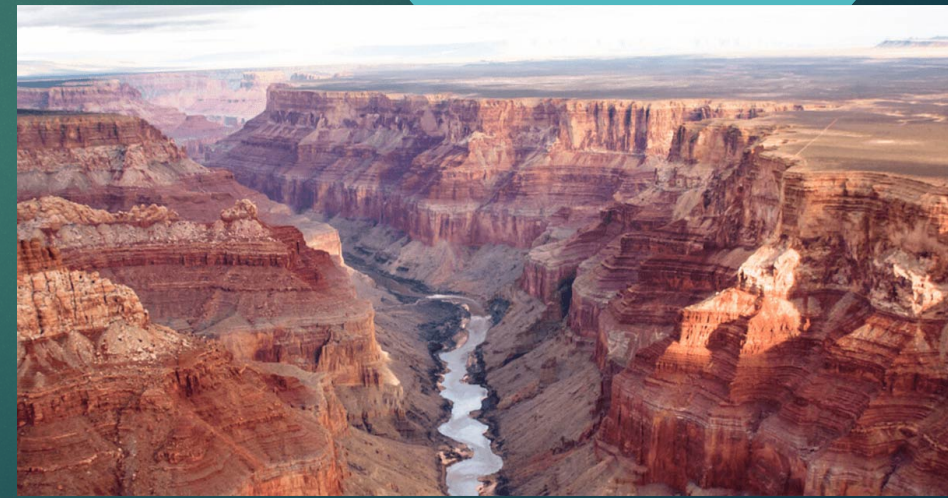
Large, rapid water flow  
can do amazing things:



Canyon Lake Gorge, TX – 2002 spillway,  
flood of Gualalupe River, 50' x 100s yrs x  
1mi, limestone, couple days!



Burlingame Canyon, Walla Walla, WA;  
120x120x1500 ft; flooding rain formed in 1926  
Grantedly, soft sandstone- but in 6 days!



Why need 5-6 M ys for Grand Canyon?

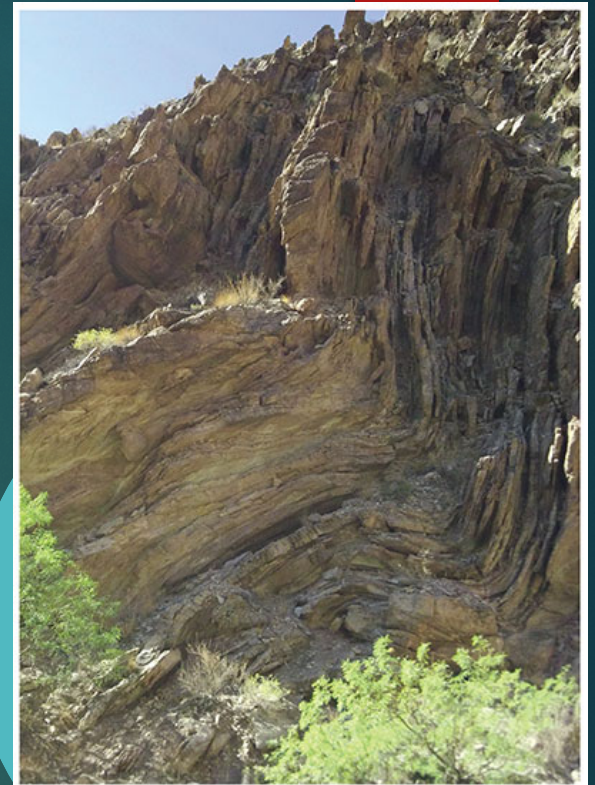


# Evidence Grand Canyon formed rapidly

- ▶ Thin layers not necessarily long time to form
- ▶ Markedly bend layers **must have been soft** to deform, otherwise would break
- ▶ **Prints** in what was likely mud
- ▶ “**missing layers**”- no trace x 500 my
- ▶ **Erosional** surfaces



Author examines the “Great Unconformity,” an erosional surface below the overlying Tapeats Sandstone where 500 million years supposedly elapsed without a trace. Image: Brian Thomas



Catastrophically rapid tectonic motions likely deformed soft-sediment layers that later hardened into sandstone in Carbon Canyon, one of Grand Canyon's side canyons.

Image: Lucien Tuinstra



A reptile or amphibian left claw marks in what must have been wet undersea sand, which later hardened into Coconino Sandstone.

Image: Kyle Justice, Awesome Science Media

**ACTS & FACTS** **CREATION Q&A**

Don't Grand Canyon Rocks Showcase Deep Time?

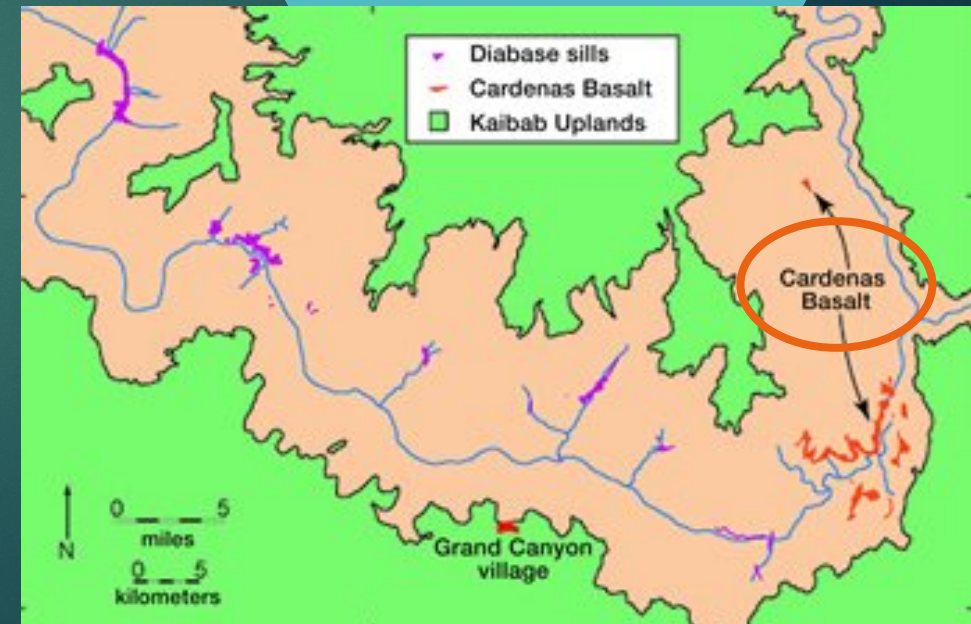
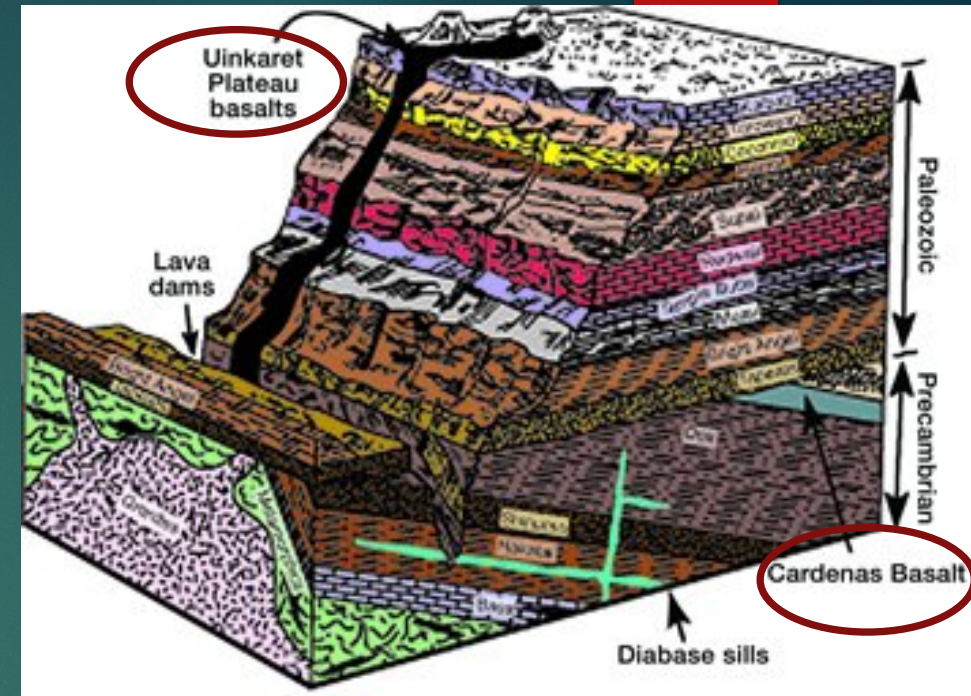
BY **BRIAN THOMAS, PH.D. \*** | **MONDAY, SEPTEMBER 30, 2013**



Inconsistencies guides will not tell you...

# Another Grand Canyon finding...

- ▶ Cardenas Basalt layer (thought to be younger) is below Uinkaret Plateau basalts
- ▶ But, strontium testing gives older # for the HIGHER layer
- ▶ also some wood was found in some basalt flows (supposed to be 30-255 my) but C14 testing only a few thousand yrs old
- ▶ Generally, mismatch alpha and beta decay methods





# Paluxy River Tracks

- ▶ Glen Rose, TX – dried riverbed
- ▶ 1908 discovered **man AND dinosaur tracks** (>70my discrepancy!)
- ▶ No other fossils found
- ▶ Over 100 tracks found since (size 7-13)
- ▶ 7' female skeleton
  - ▶ (?giants in Earth, Gen 6:4??)
- ▶ 1938 removed for geologic study



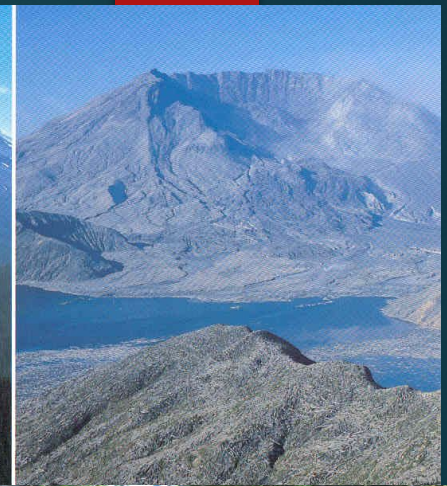
*Photo 1: The main case for human tracks was made at the Taylor site, where the long "Taylor Trail" (over 20 impressions, bottom to top) and two other trails intersected a long trail of deep dinosaur tracks (lower left to middle right). Even though the trails appeared to contain imperfect "human" tracks, some in each trail transformed over the next decade into clear dinosaur prints.*



# Mt St Helen's volcanic explosion-

May 18, 1980 ; 8:32AM PDT

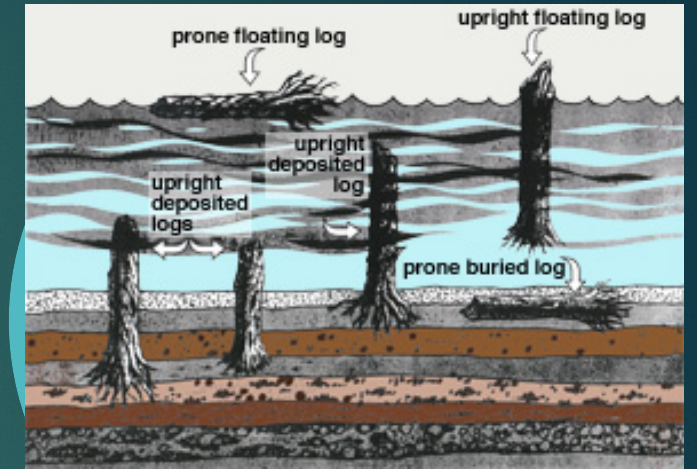
- ▶ A “medium-sized” volcano, but best observed
- ▶ Rapid formation of sedimentation – few hours (days)
- ▶ Wood to built 650K houses
- ▶ A rock cap supposedly 350K yrs was dated as 10 yrs old
- ▶ Flooding, Mudslides, hot lava, vaporizing, heavy ash- appearance of varves, canyons, rock formation, petrification, fossilization
- ▶ Upright logs (rocks in roots, waterlogged proximally)
- ▶ Floating logs (Spirit Lake), peat, coal formation in 20 yrs
- ▶ Small in comparison to Flood
- ▶ **But best observed, studied**





# Floating Forest Hypothesis (coal forming)

- ▶ Dominant plant species of carboniferous coal deposits were scaly barked trees that could reach 100' height ("arborescent lycopods"; now extinct)
- ▶ Tree fossils often found upright near coal deposits
  - ▶ Secular (autochthonous theory- forming in situ)
  - ▶ Creationist (allochthonous -moved from another source) origin of coal, as could be stripped away from origin as in the Flood
    - ▶ As many as 19K trees found in this position after Mt St Helen's
    - ▶ A forest in Glasgow, Scotland also shows similar pattern



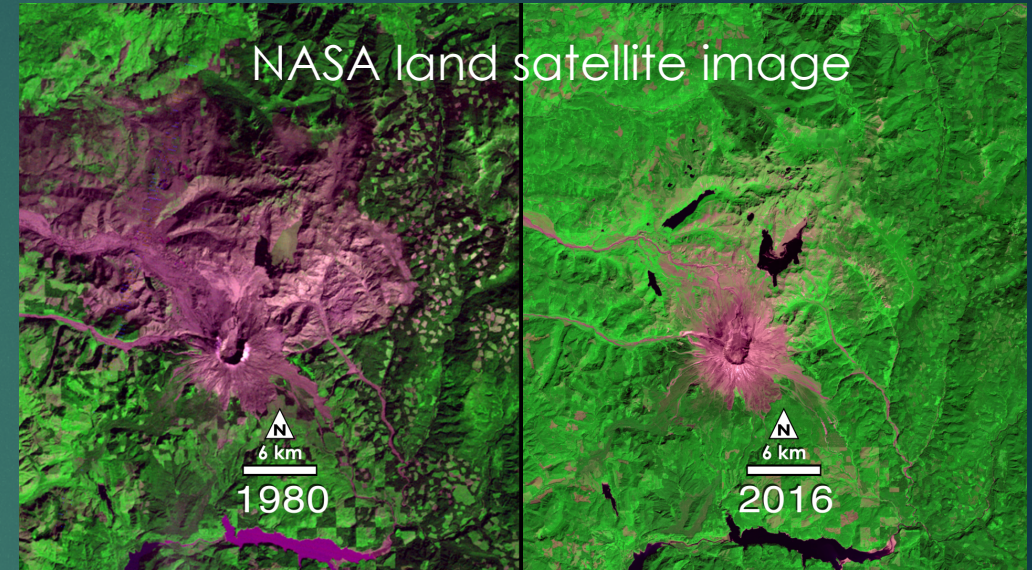
This is precisely what was observed in Spirit Lake after Mt St Helen's eruption!



# Rapid recovery after Mt St Helens

- ▶ May 18, 1980 – 200 sq mi destroyed by eruption
  - ▶ Enough timber for 650K homes
  - ▶ 11 million fish; 1 million birds, hundreds or thousands of other mammals
- ▶ Pres Jimmy Carter – “a moonscape”
- ▶ Gloomy predictions of never recovering
- ▶ Yet, withing 3 years
  - ▶ Living species mostly recovered
    - ▶ Salmon, fish, plants
    - ▶ Only species requiring old growth forests did not return
  - ▶ Forest growth longer
- ▶ 20 yrs later, well recovered – revegetation, animals, birds returned - was predicted to be irreparable ecosystem

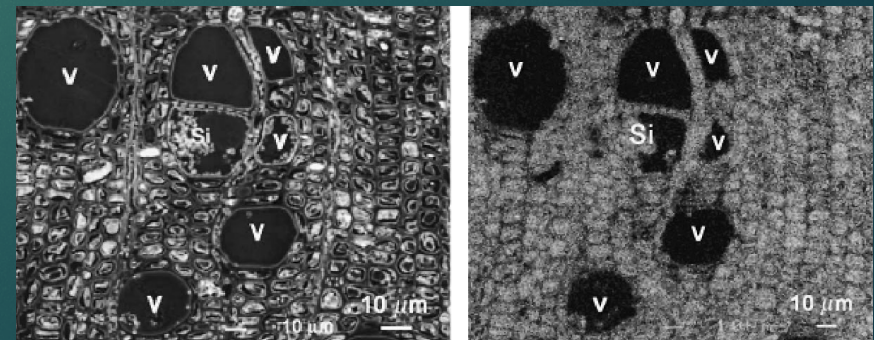
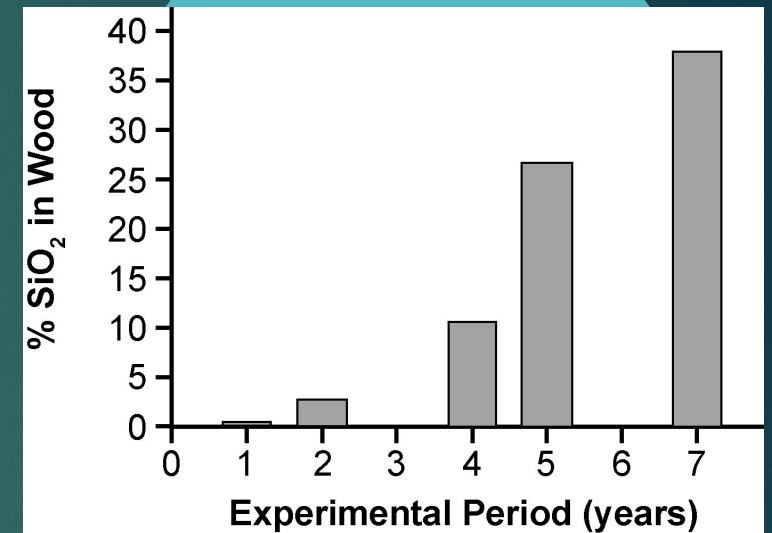
▶ Testament to resiliency of God's Creation





# Rapid petrification of wood

- ▶ Petrification is replacement of the wood with silica (opal)
- ▶ Rapid formation seen – eg Mt. St Helens, Yellowstone
- ▶ Previously demonstrated could be made withing 25 hours in lab (quartz), pressure, temperature dependent
- ▶ Akahane HT, et al. Sed Geol 2004;169:219
  - ▶ Tateyama Hot Spring (central Japan), opal deposits on shore
  - ▶ Placed wood samples on wire, maintained 50°C and pH about 3
  - ▶ Petrification fairly rapidly – **by 36 yrs 39%**, faster by heating wood in a furnace to remove organic matter





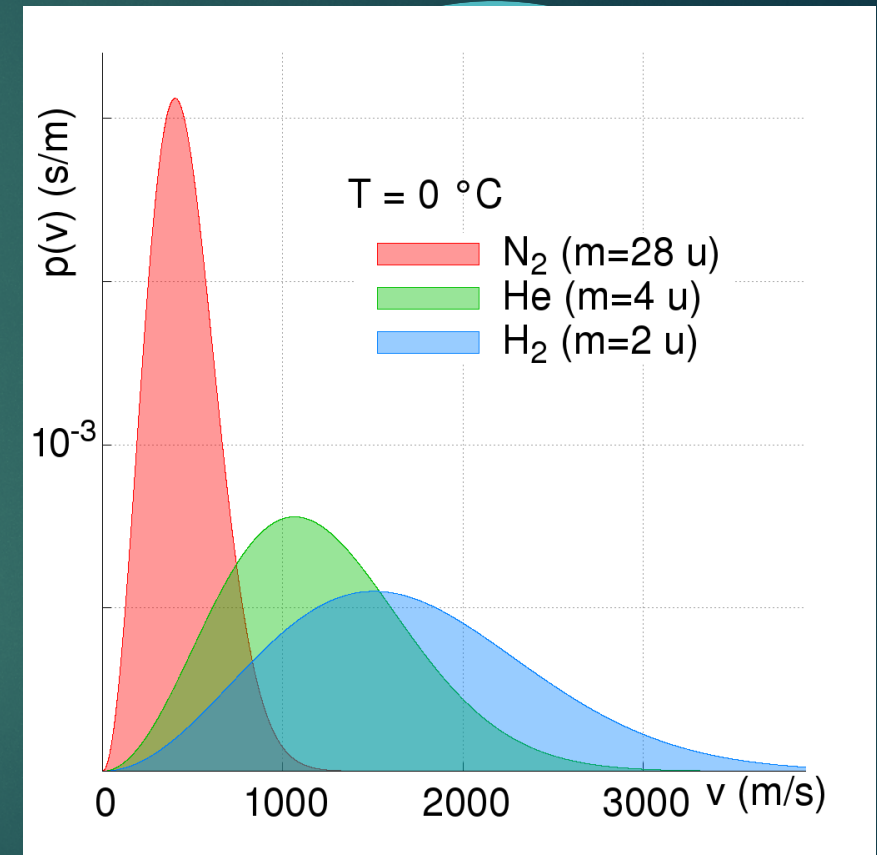
Many other examples of findings  
more c/w young earth...





# Efflux of gases to atmosphere

- ▶ He, formed in alpha decay of Ur
- ▶ There is  $2 \times 10^{20}$  g Ur and Th in lithosphere;
  - ▶ He produced at  $3 \times 10^9$  g/yr,
  - ▶ So should have only taken 2M yrs
- ▶ He influx (“Jeans escape”) would reduce even further, **just a few thousand yrs** (Cook, Nature 1957; 179:213)





# Influx of cosmic dust

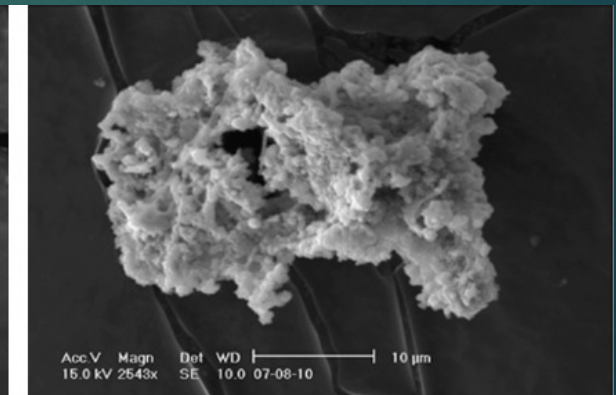
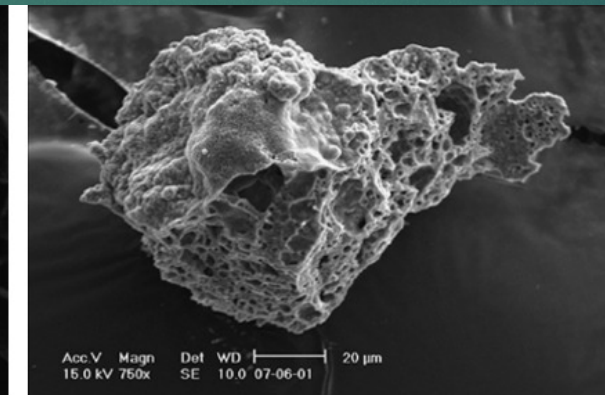
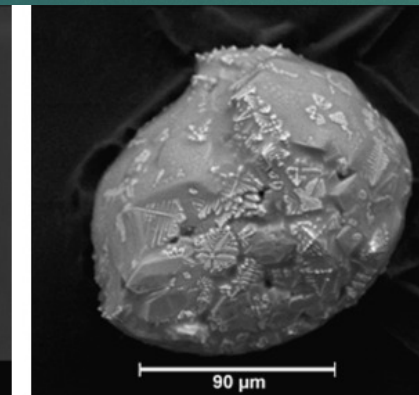
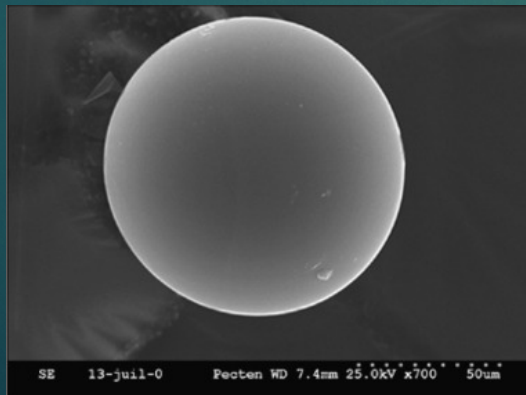
- ▶ Estimated at  $14 \times 10^{19}$  tons/yr
- ▶ Thus for 5 By ( $5 \times 10^9$ ), divide by 140 lbs/ft<sup>3</sup>,
  - ▶ We should have a 182' layer around the  $5 \times 10^{15}$  ft<sup>2</sup> of the Earth's surface!
- ▶ Cosmic dust is rich in Ni; rare in ocean, so not eroded into there

60 tons of Cosmic Dust hits Earth Daily



iCroveScience

Thousands of pounds of cosmic dust hits Earth every day as it passes through old comet trails and asteroid debris. Using measurements from the StarFire Optical Range in New Mexico, scientists estimate roughly 60 tons of cosmic dust enters Earth's atmosphere every day, helping with cloud formation and fertilizing Antarctica plankton.





# Sediment flows

Using uniformitarian calculations, **MANY** evidences of much younger (than 4.7 By) Earth

## APPENDIX 6 GLOBAL PROCESSES INDICATING RECENT CREATION

### Uniformitarian Estimates — Age of the Earth

(Unless otherwise indicated, these estimates are based on standard assumptions of (1) zero initial “daughter” component; (2) closed system; and (3) uniform rate. Reference numbers refer to documentation cited on pages immediately following this table.)

Process	Indicated Age of Earth in Years	Reference
1. Decay of earth's magnet field	10,000	1
2. Influx of radiocarbon to the earth system	10,000	2
3. Continuous rapid deposition of geologic column	too small to calculate	3
4. Influx of juvenile water into oceans	340,000,000	3
5. Influx of magma from mantle to form crust	500,000,000	3
6. Growth of oldest living part of biosphere	5,000	3
7. Origin of human civilizations	5,000	3
8. Efflux of helium-4 into the atmosphere	1750–175,000	4
9. Development of total human population	4,000	5
10. Influx of sediment to the ocean via rivers	30,000,000	6
11. Erosion of sediment from continents	14,000,000	6
12. Leaching of sodium from continents	1,000,000	7
13. Leaching of chlorine from continents	1,000,000	7
14. Leaching of calcium from continents	12,000,000	7
15. Influx of carbonate into the ocean	100,000	7
16. Influx of sulphate into the ocean	10,000,000	7
17. Influx of chlorine into the ocean	164,000,000	7
18. Influx of calcium into the ocean	1,000,000	7
19. Influx of uranium into the ocean	1,260,000	8
20. Efflux of oil from traps by fluid pressure	10,000–100,000	9
21. Formation of radiogenic lead by neutron capture	too small to measure	9
22. Formation of radiogenic strontium by neutron capture	too small to measure	9
23. Decay of natural remanent paleomagnetism	100,000	9
24. Parentless polonium halos	too small to measure	10
25. Decay of uranium with initial “radiogenic” lead	too small to measure	11
26. Decay of potassium with entrapped argon	too small to measure	11
27. Formation of river deltas	5,000	12
28. Submarine oil seepage into oceans	50,000,000	13
29. Decay of natural plutonium	80,000,000	14
30. Decay of lines of galaxies	10,000,000	15
31. Expanding interstellar gas	60,000,000	16
32. Decay of short-period comets	10,000	17
33. Decay of long-period comets	1,000,000	18
34. Influx of small particles into the sun	83,000	18
35. Maximum life of meteor showers	5,000,000	18
36. Instability of rings of Saturn	1,000,000	18
37. Escape of methane from Titan	20,000,000	18

38. Accumulation of dust on the moon	uncertain	19
39. Deceleration of earth by tidal friction	500,000,000	20
40. Cooling of the earth by heat efflux	24,000,000	20
41. Accumulation of calcareous ooze on sea floor	5,000,000	21
42. Influx of sodium into the ocean via rivers	62,000,000	22
43. Influx of nickel into the ocean via rivers	9,000	23
44. Influx of magnesium into the ocean via rivers	45,000,000	23
45. Influx of silicon into the ocean via rivers	8,000	23
46. Influx of potassium into the ocean via rivers	11,000,000	23
47. Influx of copper into the ocean via rivers	50,000	23
48. Influx of gold into the ocean via rivers	560,000	23
49. Influx of silver into the ocean via rivers	2,100,000	23
50. Influx of mercury into the ocean via rivers	42,000	23
51. Influx of lead into the ocean via rivers	2,000	23
52. Influx of tin into the ocean via rivers	100,000	23
53. Influx of aluminum into the ocean via rivers	100	23
54. Influx of lithium into ocean via rivers	20,000,000	23
55. Influx of titanium into ocean via rivers	160	23
56. Influx of chromium into ocean via rivers	350	23
57. Influx of manganese into ocean via rivers	1,400	23
58. Influx of iron into ocean via rivers	140	23
59. Influx of cobalt into ocean via rivers	18,000	23
60. Influx of zinc into ocean via rivers	180,000	23
61. Influx of rubidium into ocean via rivers	270,000	23
62. Influx of strontium into ocean via rivers	19,000,000	23
63. Influx of bismuth into ocean via rivers	45,000	23
64. Influx of thorium into ocean via rivers	350	23
65. Influx of antimony into ocean via rivers	350,000	23
66. Influx of tungsten into ocean via rivers	1,000	23
67. Influx of barium into ocean via rivers	84,000	23
68. Influx of molybdenum into ocean via rivers	500,000	23

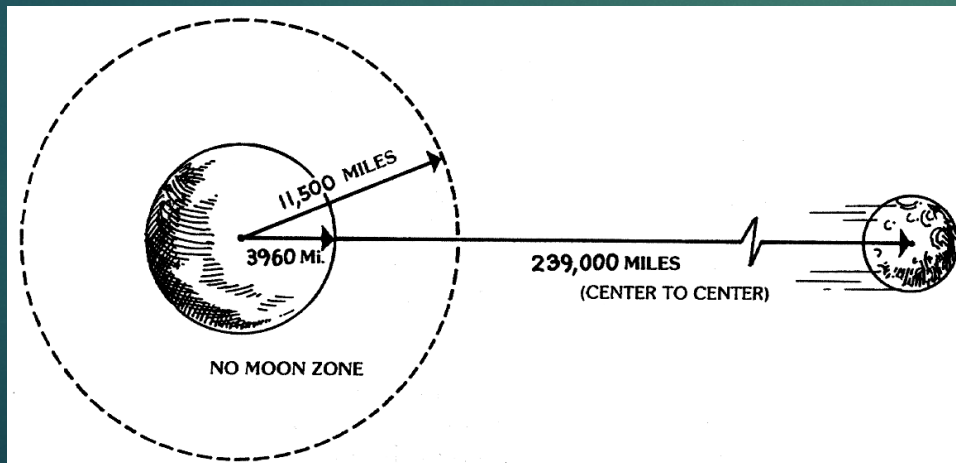
### Documentation for Age Estimates

1. Thomas G. Barnes, *Origin and Destiny of the Earth's Magnetic Field* (San Diego, CA: Institute for Creation Research, 1983), 132 p.
2. Melvin A. Cook, “Do Radiological Clocks Need Repair?” *Creation Research Society Quarterly* 5 (Oct. 1968): p. 70. See also *Radiocarbon and the Age of the Earth*, by Gerald Aardsma (San Diego: Institute for Creation Research, 1991).
3. Henry M. Morris, editor, *Scientific Creationism* (Green Forest, AR: Master Books, 1985).
4. Melvin A. Cook, “Where is the Earth's Radiogenic Helium?” *Nature* 179 (Jan. 26, 1957): p. 213. See also *The Age of the Earth's Atmosphere*, by Larry Vardiman (San Diego, CA: Institute for Creation Research, 1990).
5. Henry M. Morris, “Evolution and the Population Problem,” *ICR Impact Series, Acts and Facts*, no. 21 (Nov. 1974).
6. Stuart E. Nevins, “Evolution, The Ocean Says No,” *ICR Impact Series, Acts and Facts* 2, no. 8 (Oct. 1973).
7. Dudley J. Whitney, *The Face of the Deep* (New York, NY: Vantage, 1955).
8. Salman Bloch, “Some Factors Controlling the Concentration of Uranium in the World Ocean,” *Geochimica et Cosmochimica Acta* 44 (1980): p. 373–377. See also — *What Is Creation Science?* by Henry M. Morris and Gary Parker (Green Forest, AR: Master Books, 1987), p. 283–284.
9. Melvin A. Cook, *Prehistory and Earth Models* (London: Max Parrish, 1966).
10. Robert Gentry, *Creation's Tiny Mystery* (Knoxville: Earth Science Associates, 1988).



# Young Moon/Earth evidences

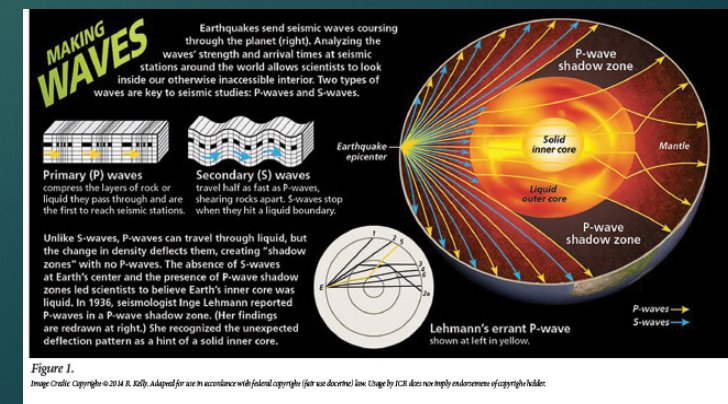
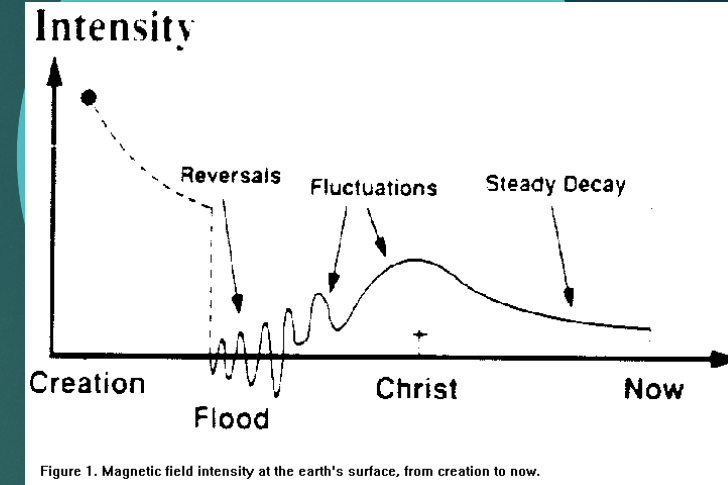
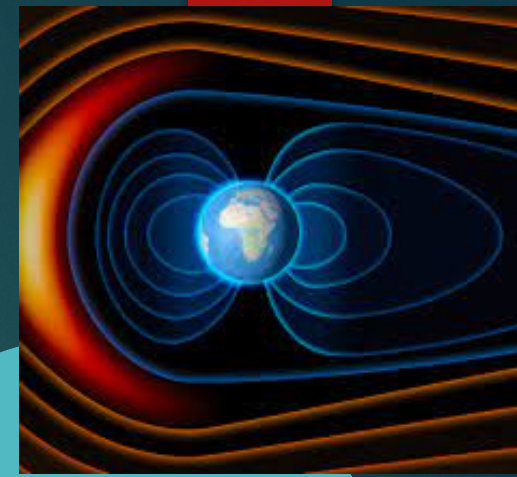
- ▶ The moon is receding at a known rate (3.78 cm/yr); currently 240K miles
  - ▶ Roche limit: moon could not have survived closer than 11.5K or else tidal forces from the Earth would break it up
  - ▶ Yields max age of 462 My
- ▶ Also, **tidal friction is slowing spin rate down**, could not be 1B yr or else earth's present shape would be different
- ▶ Humes (MIT prof) writes: "origin of moon...highly speculative"; "impact"





# Decay of Earth's Magnetic Field

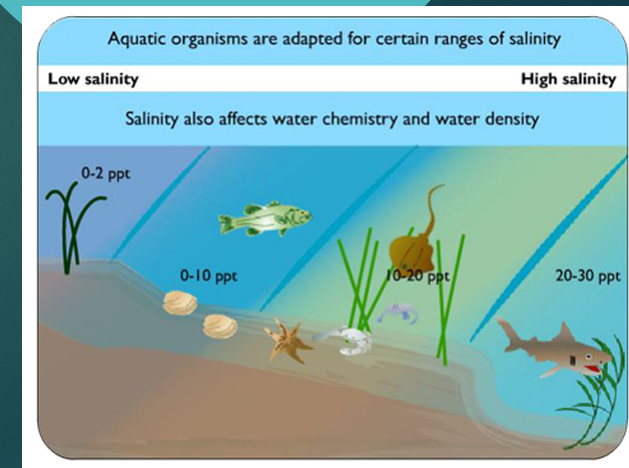
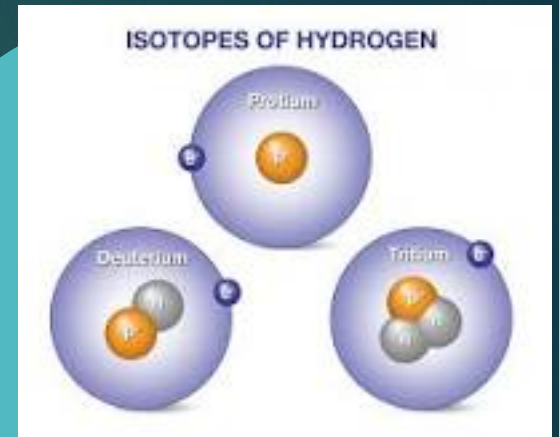
- ▶ 1<sup>st</sup> measured 1829
  - ▶ Basic E & M physics:
    - ▶ Lamb 1883 solved EM problem of current in a conducting sphere
    - ▶ Gauss first observed (not for earth)
  - ▶ Larmor 1919 proposed dynamo theory for Earth (Dalrymple- from moving core ), permanent;
    - ▶ Experiments: correlate with thermal/electrical conductivity of Fe sets limits at 700My (not 4.7By) (Physics Today. 69(7):25.
- ▶ Has been measured; "half life" 1 400 yrs; down 14% since 1829
  - ▶ Implies 32x stronger 7000 yrs ago
  - ▶ Suggests upper limit of 10K yrs for age of earth
    - ▶ If magnetic field too high, heart conduction/neural transmission off
    - ▶ Also, if was too high, cosmic radiation would have been diverted, causing a shortening of the time scale of radiocarbon accumulation





# Age of Ocean

- ▶ Evolution: from a rain of comets that melted
  - ▶ 1999 Caltech study found **Deuterium** (heavy water) in Hale-Bopp comet, suggesting our oceans should be laden with D<sub>2</sub>O (but they are not; D<sub>2</sub>O does not decay)
    - ▶ [Neo.jpl.nasa.gov/news/news008.html](http://Neo.jpl.nasa.gov/news/news008.html)
- ▶ Austin SA, Humphreys RD. The Sea's Missing Salt. Proc 2<sup>nd</sup> Int conf of Creationism, 1 (1991):17-33
  - ▶ **Salinity increasing**; Maximum upper age of ocean 62M yrs with longest assumptions
  - ▶ **Ocean cooling** (from initial hot Big Bang)
    - ▶ At sea floor 20° C less ; more c/w sudden cooling at flood than 60M yrs
- ▶ Ocean sediments too thin - points to a young earth: thin Pleistocene (Ice Age) layer on top of a Tejas layer
  - ▶ Mean thickness of deep ocean sediments 2100' (2950' at most); 820x 10<sup>15</sup> tons
  - ▶ 22-27.5B tons added /yr – ~30M yrs (cf 1 - 4.7 B); would have to be 38mi thick for 1Byrs
  - ▶ Compare: Volume of continents (383 x 10<sup>15</sup> tons, at current rate, no land in 14 Myrs
  - ▶ Eg coal beds and recently discovered oil ("Whopper Sand") at that level in deep Gulf of Mexico; evidence of "rapid" ocean formation





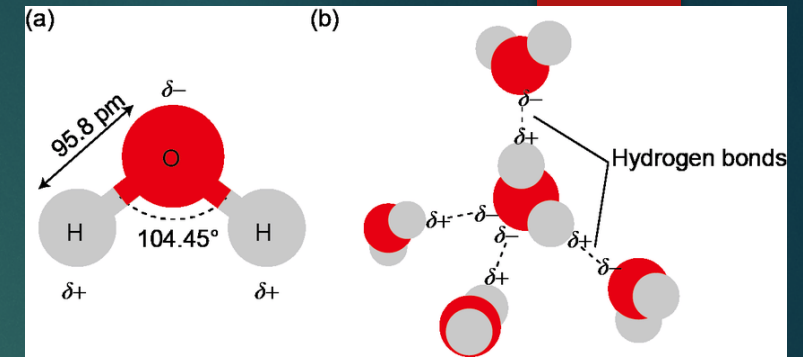
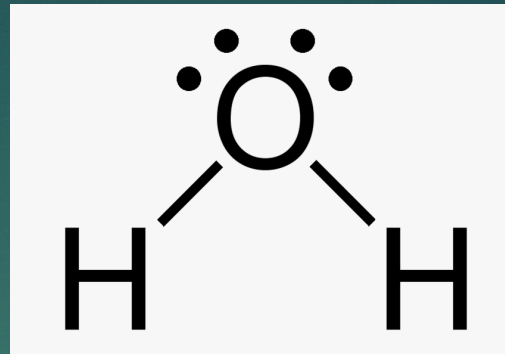
# Purpose of this Section



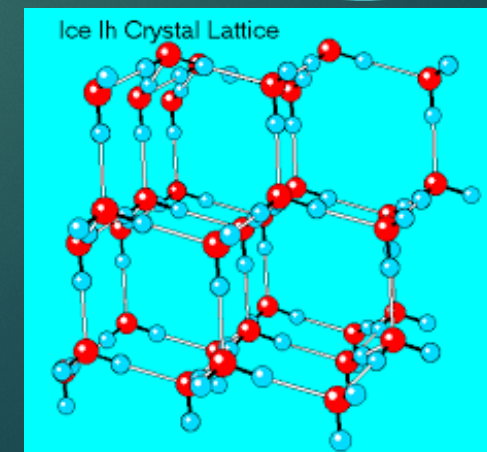
- ▶ Describe the circular reasoning of strata
- ▶ Demonstrate evidences for young earth
  - ▶ Dating methods – radio dating, and others
    - ▶ Contradictory (to old earth) findings
  - ▶ Recent things that give appearance of being old
  - ▶ Sediments, etc
  - ▶ Violations of logic
- ▶ **Evidences of design – hydrological and other cycles, atmosphere**
- ▶ Examples of where Flood better explains findings
  - ▶ Ice Age, continental drift



# Water



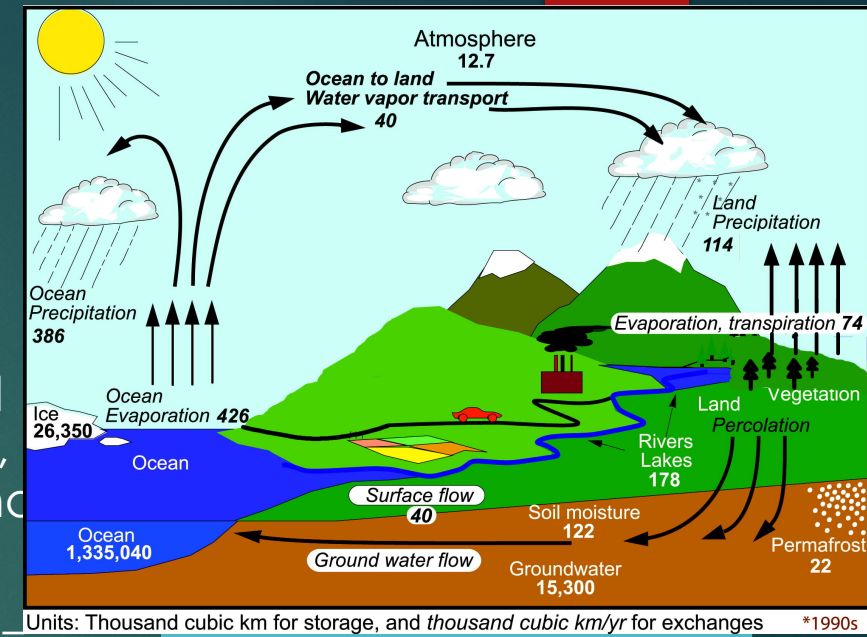
- ▶ Necessary for life
- ▶ No other “alternate universe” with a substitute
- ▶ 70% human; 67% earth surface
- ▶ Unshared electrons make it bent (104.5°)- polar, aggregates, solvent, high surface tension
  - ▶ Great (necessary) media for chemical/metabolic reactions
- ▶ Becomes less dense (floats) as it freezes- eg icebergs/cubes
  - ▶ Freezing of a lake, etc allows aquatic life to survive
- ▶ Snowflake hexagonal crystal, varies by temp, all are unique; high degree of order/design





# Hydrological cycle

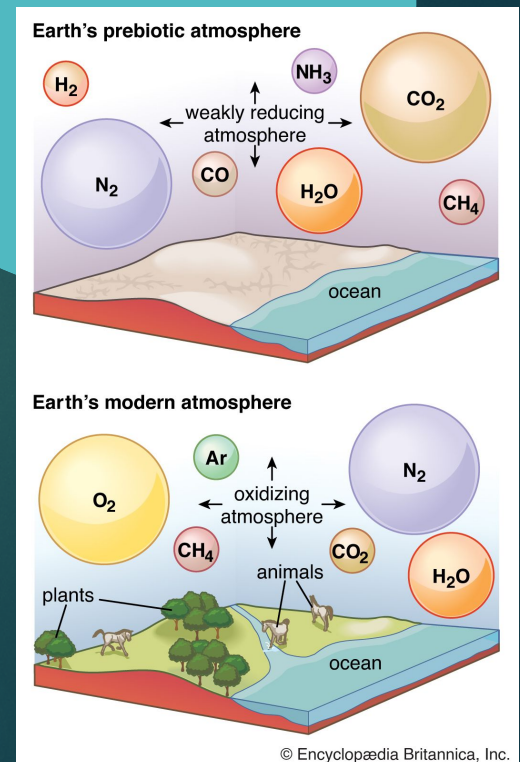
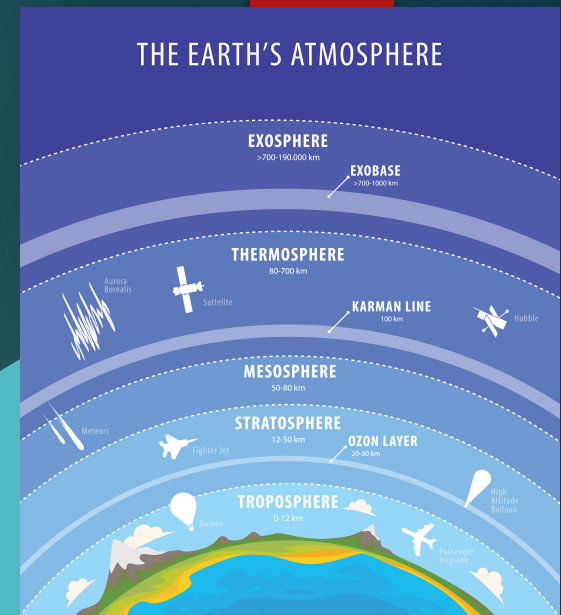
- ▶ Water – ideal solvent; life impossible without it (2/3 man=water)
- ▶ Cycle: evaporation from ocean, atmospheric pressure-induced movements over land, condensation on particles, precipitation, collection to fresh water streams/rivers, run off into ocean/groundwater
  - ▶ Jer 10:13- wind; Ecc 1:6- wind circuits; Prov 8:26- dust; Job 26:8;37:16 – balancing of clouds, waters in clouds; Ecc 11:3; Job 28:24-7; Isa 55:10-11- rain; Isa 40:12 – conditions for rain
- ▶ Water as a regenerative symbol throughout Scripture
- ▶ But also...
  - ▶ judgment /weaponized
    - ▶ Noah's flood (Gen 7-9)
    - ▶ from hailstones (Josh 10:11; Ezek 38:22; Rev 16:21)
    - ▶ Serpent tried to carry woman away (Rev 12:15)
  - ▶ No more need for sea in new Earth (Rev 21:1)





# Earth's atmosphere

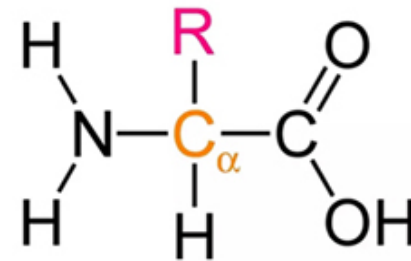
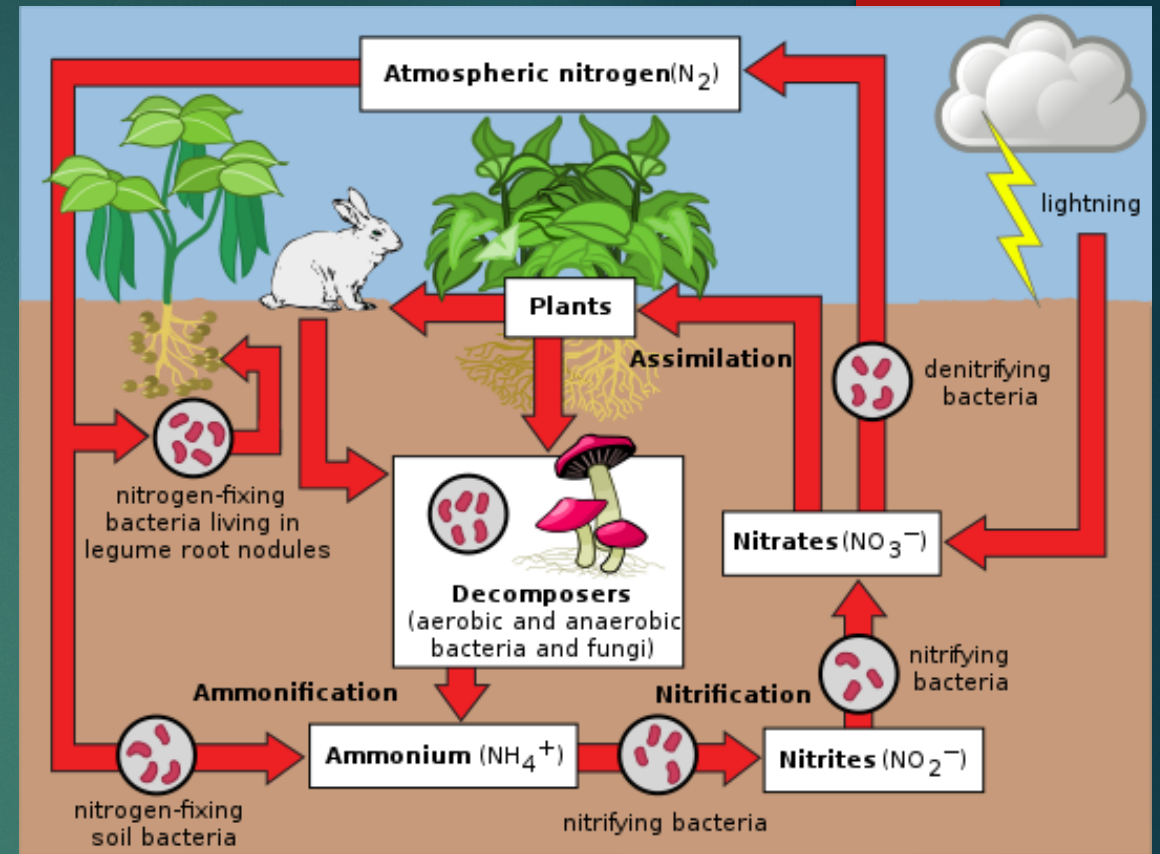
- ▶ Features indicating well designed:
  - ▶ Protection from UV, space debris
  - ▶ Correct concentration of oxygen; CO<sub>2</sub> cycle
- ▶ Evolution dogma: was reducing (anoxic) initially (N<sub>2</sub>, CH<sub>4</sub>, NH<sub>3</sub>, H<sub>2</sub>O)
  - ▶ since many “old” rocks have reduced components (pyrite)
  - ▶ but some (uraninite) only partially oxidized and some other mineral deposits show signs of weathering/oxidizing (magnetite)
  - ▶ also lack of other likely reduced forms of other rock minerals (barite, celestite, anhydrite, galena, sphalerite, gypsum)
  - ▶ **But how did it change to allow life to evolve?**  
**Lots of moving parts to do that!**



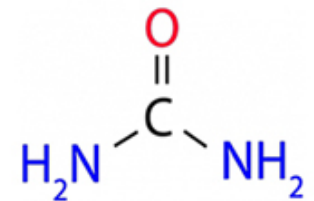


# Nitrogen cycle

- ▶ 78% of our atmosphere
- ▶ Necessary organic building block (eg in fertilizers, nucleic acids/proteins)
- ▶ Fixation by soil microorganisms
- ▶ Decomposers
- ▶ Complex biochemical systems in place early



An amino acid has a primary carbon atom (orange) bonded to four groups: an amino group ( $NH_2$ ), a carboxyl group ( $COOH$ ), a hydrogen ( $H$ ), and an R group (red) that is different for each amino acid.



Urea is a nitrogenous (nitrogen-containing) compound found in urine. It is used to eliminate waste nitrogen.



# Purpose of this Section



- ▶ Describe the circular reasoning of strata
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  - ▶ **Ice Age, continental drift**



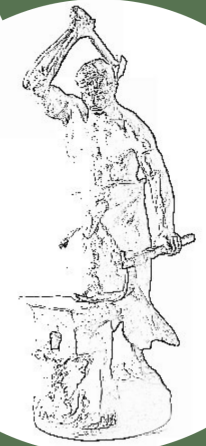
# Uniformitarianism fails in explaining geologic record (as in other areas)

- ▶ LaMarck (b 1744) – last of naturalists (before genetics)
- ▶ Thomas Dewey – education systems without supernatural creation
- ▶ Engels, in eulogizing Marx stresses communism as a social consequence:
  - ▶ “Just as Darwin discovered the law of evolution in organic nature, so Marx discovered the law of evolution in human history”
- ▶ (in different context) Aristotle: The notion that there could be nothing that preceded something offends reason itself

Lamarck argued that...



... a blacksmith gets strong muscles from his work ...



... and his sons inherit those strong muscles.

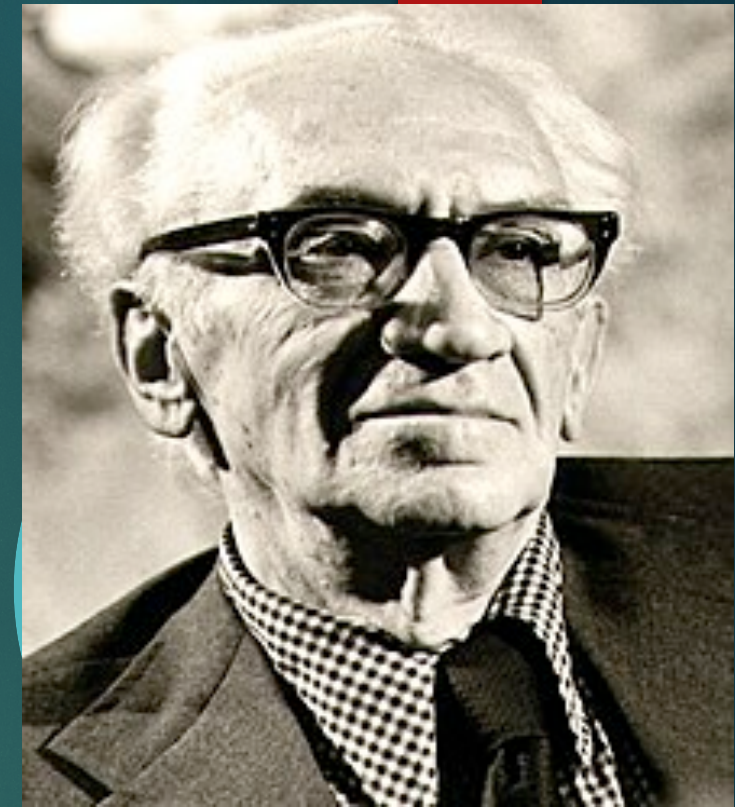
Neodarwinism: catastrophism, punctuated equilibrium





# NeoCatastrophism (geologic)

- ▶ Really, born of failure of Uniformitarianism model
- ▶ 1950 – Immanuel Velikovsky (1895-1979) – published theory; hypothesized large comets colliding with earth
  - ▶ Later others suggest meteorites, wobbling of Earth, ice-caps, asteroid encounters, shifting poles, colliding continents, local but widespread floods, drastic sea level changes, gamma ray radiation, etc
- ▶ Gould, Eldredge – “punctuated equilibrium”





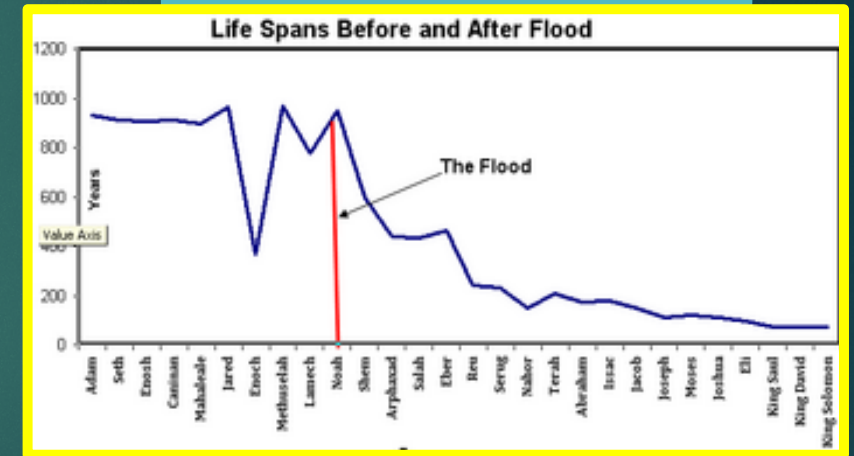
# Flood is very c/w a lot of geology

- ▶ “catastrophism” has been adopted by most evolutionists (instead of uniformitarianism)
- ▶ OK, they are getting closer...



# Genesis/Biblical Flood (Gen 6-9)

- ▶ Did it occur?
  - ▶ Mention in multiple ancient civilizations
  - ▶ Peter attests (2 Pet 3:3-7)
  - ▶ Geology (and more details to come...)
  - ▶ Man's longevity decreased after (**real climate change!**)
  - ▶ Universal, destroyed humanity (except Noah's family)
  - ▶ Context of corrupt world
- ▶ When did it occur?
  - ▶ About 2350 BC (Ussher) but much room for somewhat longer
- ▶ No rain until Flood
- ▶ Source of water –(Gen 7:11)
  - ▶ windows of heaven (*arubbah*) - rain (collapse of water canopy)
  - ▶ deep (*t'hom*), fountains of the deep
    - ▶ Cf also, even now 6M tons water/sec across equator (enormous ocean currents)





# Other civilizations with great floods

## At least 500 legends identified of a worldwide deluge (fits with Noah's sons disseminating as progenitors)

- ▶ **Mexico** – many flood “myths” – Nahua (central, Tarahumara (north), Michoacan, Cora (east), Totonac (east), Aztec, Mayan
- ▶ **Incas of Peru** – water above highest mountain; all perished except a man and woman who floated in a box
- ▶ **Scandinavia** – world chaos by mighty wolf Fenrir, earth split, steam then rivers/waves covered earth
- ▶ **Hualapai (NW AZ)** – 45 d rain destroying all people atop Spirit Mountain; dove brought instructions from Creator to sole survivor to end; Creator made brothers, one (Coyote) rebelled and fled; younger brother led people “across the water” to a new land in the east – dispersed to become Navajo, Mojave, Hualapai
- ▶ **India – Satyavrata** (7<sup>th</sup> Manu, 1<sup>st</sup> king of earth saved mankind from flood); Matsya avatar of Vishnu had advice to build great boat
- ▶ **China** (tribe of Bahnars in Cochin)– Gong Gong ordered by gods to make punishing flood lasting 22 yrs; hero built a dam but was killed and son completed;
- ▶ other stories in **Chinese** “book of knowledge” discovered by Jesuit missionaries – earth shaken to its foundations
- ▶ **Rome** – Ovid recounts collusion among gods (Jupiter and Neptune) to punish evil humanity with worldwide flood (except Mt Parnassuas)
- ▶ **Australian Aborigines** – flood covered mountains, spirit men and women drowned but hero caught up into sky and was returned
- ▶ **Egypt** – creation god, Tem, primeval flood entire earth – saved only those in Tem's boat
- ▶ **Babylonian** – Epic of **Gilgamesh** ~2000BC (several parallels w Hebrew Bible)
  - ▶ Similarities – Divine, hero, large boat, deliverance family, causes, duration, landing place, birds sent out, worship and blessing after
  - ▶ Differences – Enlil opposition other gods, not announced, smaller cube, rain only, raven (no olive leaf), no sacrifice

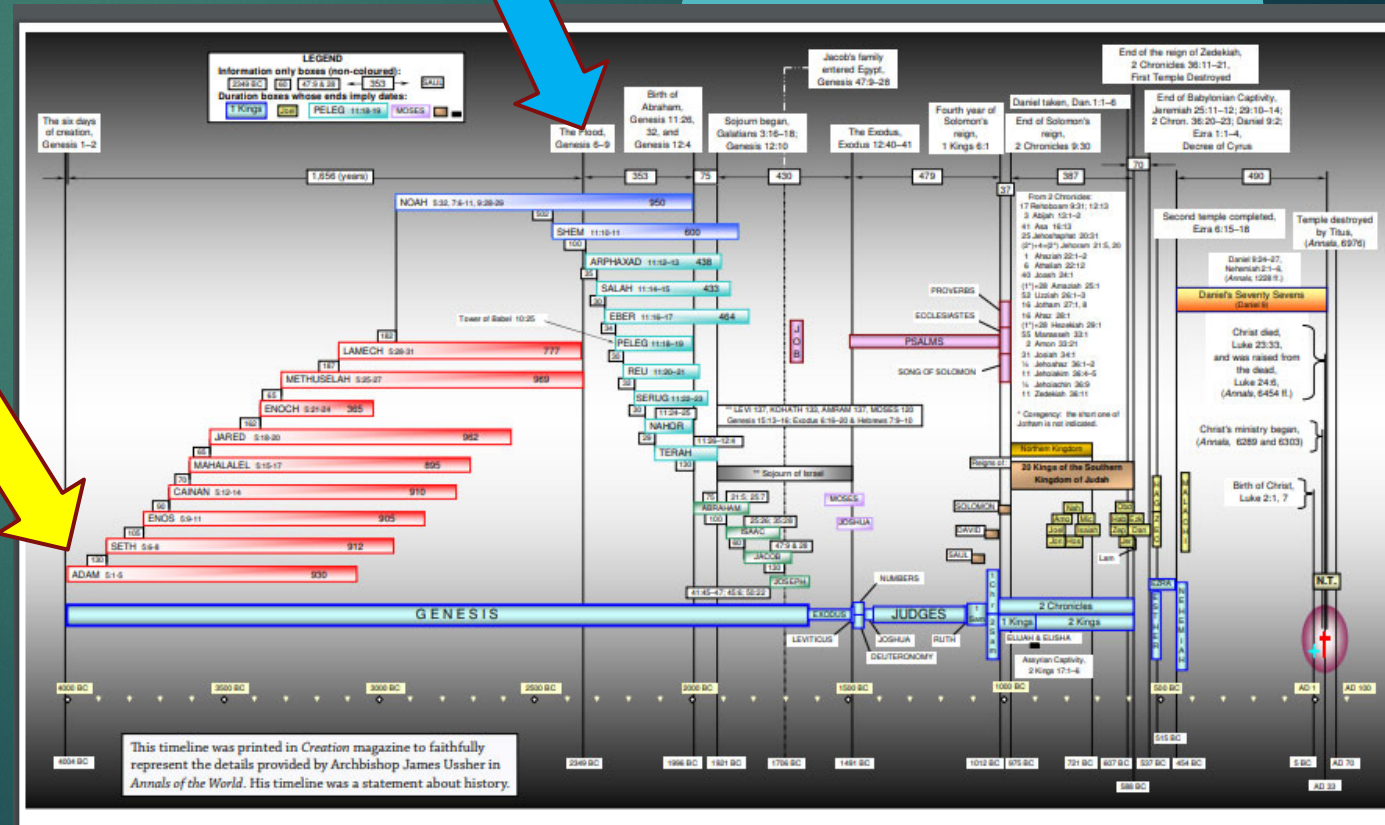
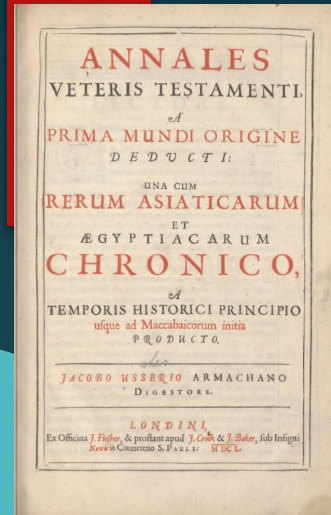


# Timeline of world (Ussher's, etc)

- ▶ James Ussher, archbishop of Armagh/Ireland (1581-1656)
- ▶ Resisted pressure to bring RC and Calvinism together
- ▶ Chronology published 1650 (1600pg!)
- ▶ From OT
  - ▶ Creation 4004 BC
  - ▶ Flood 2350 BC
- ▶ Room for some gaps, but generally “recent”
  - ▶ Patriarchal periods
    - ▶ “begat” could also be used for ancestral lines
    - ▶ Eg Matt 1:8 skips at least 3 generations
    - ▶ Gen 11 genealogy might have gaps
  - ▶ Messianic lines not always 1<sup>st</sup> born
  - ▶ Never “totaled” in Scripture
  - ▶ Could incorporate even to ~10K yrs
- ▶ Cf, Evolution needs billions yrs;
  - ▶ Creation does not require only ~10K



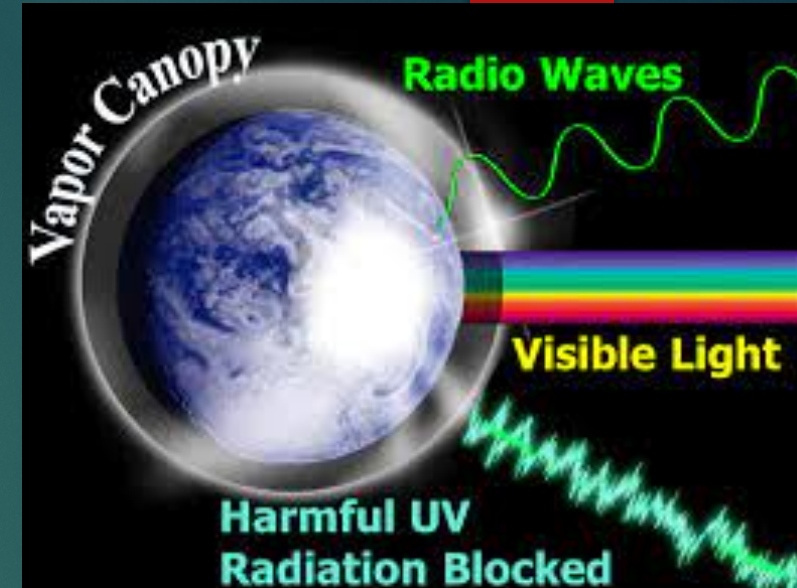
Bishop Ussher  
[https://en.wikipedia.org/wiki/James\\_Ussher](https://en.wikipedia.org/wiki/James_Ussher)





# PreFlood conditions

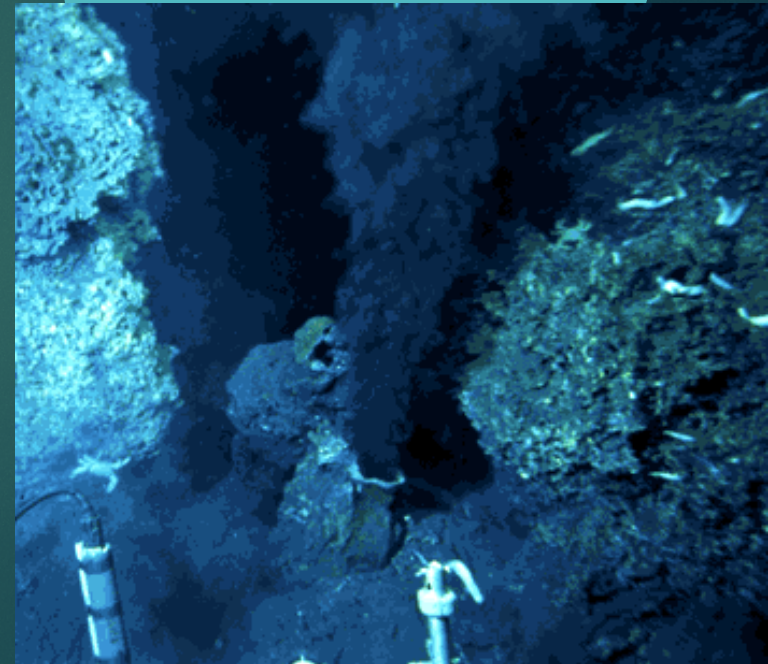
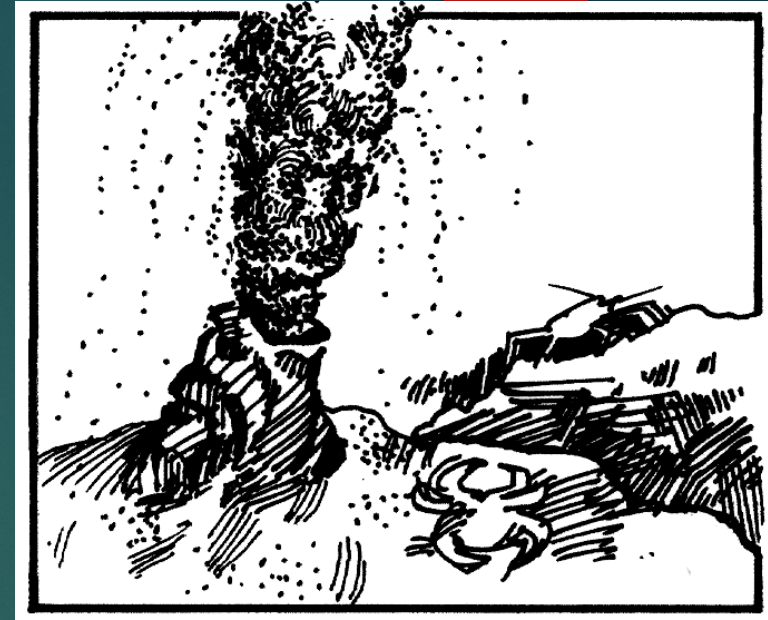
- ▶ **Water canopy** before Flood (Gen 1:7 waters above firmament)
  - ▶ Outer atmosphere could have been much hotter, to allow supersaturation with water (thermosphere)
- ▶ Universally tropical-type climate (fossils similar world round) (“Greenhouse effect”) throughout earth
  - ▶ **tropical tree fossils in Arctic**
  - ▶ **Rainforest fossils** found on Antarctica (sediment core, 2017)
  - ▶ **c/w preflood climate predictions of creationism**
  - ▶ Likely **higher barometric pressure** of O<sub>2</sub> from more plants, and mist (cf hyperbaric oxygen chambers for wound healing, etc today)
- ▶ No rain before the Flood (Gen 2:5,6)
- ▶ Little or no volcanic activity until Flood – Gen 7:11- breaking up of the great deep
- ▶ Longer life, mostly vegetarian
- ▶ **Condensed/released suddenly** at time of 40d Flood- polar temperature decrease, etc





# “Springs of the sea”

- ▶ Job 38:16 - Hast thou entered into the springs of the sea? or hast thou walked in the search of the depth?
  - ▶ Springs = *NEBEK* ; only occurrence, but Psa 33:7 describes “waters of the deep” (=springs in ocean)
  - ▶ Cf: Fountain (*MYANOTH*) of the deep (*TEHOM*) (eg Gen 7:11)
- ▶ This was later demonstrated!
  - ▶ Springs exist in ocean floor (before discovered in Baja California, late 1960s)
  - ▶ Were established at Creation
  - ▶ **Wisdom and power of God demonstrated, like a fulfilled prophecy!**

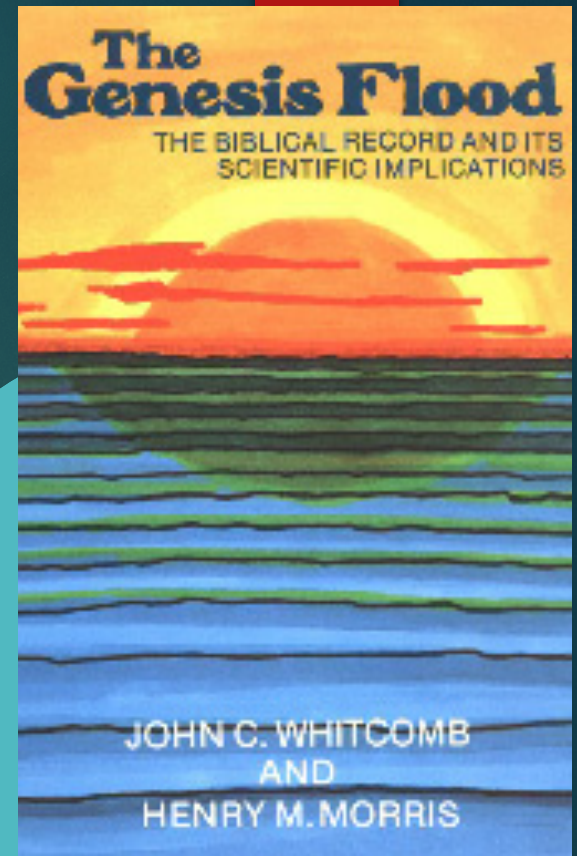


Galapagos Rift, off Ecuador

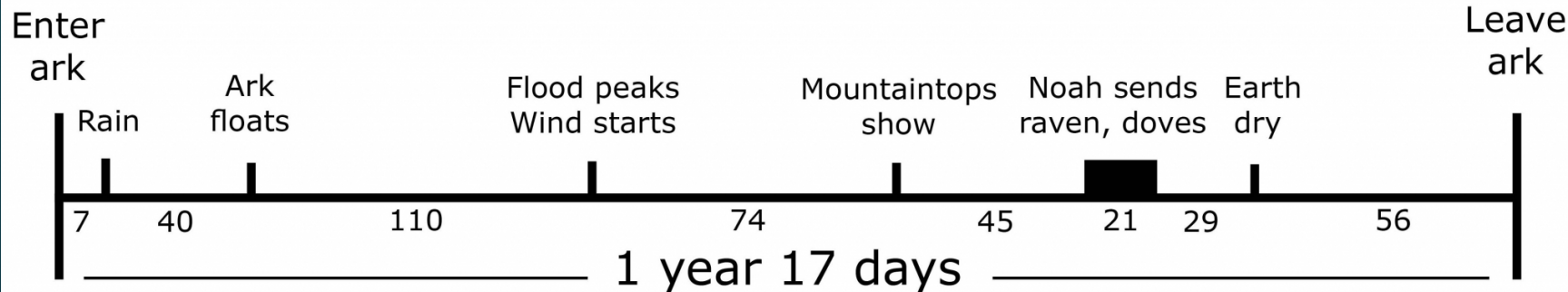


# Some features of Genesis Flood

- ▶ Noah and 3 sons and wives = 8 people (only righteous humans)
  - ▶ Building (with laborers) x100 yrs
- ▶ 2 of every unclean kind; 7 pairs of clean and birds
- ▶ God sealed door; wait 7d, rain 40d, prevail 110d more; subside and land on mountain, raven/doves, exit from ark
- ▶ Water rose to 15 cubits “upward” – could be above hills or just draught of Ark
- ▶ Gen 7:19, whole (kol) not appropriate usage for local
- ▶ Geography likely very different or altering
- ▶ Came to rest at Mt Ararat, eastern Turkey; rumors of relics, none despite looking
- ▶ God's promise (covenant of dominion) to Noah afterwards



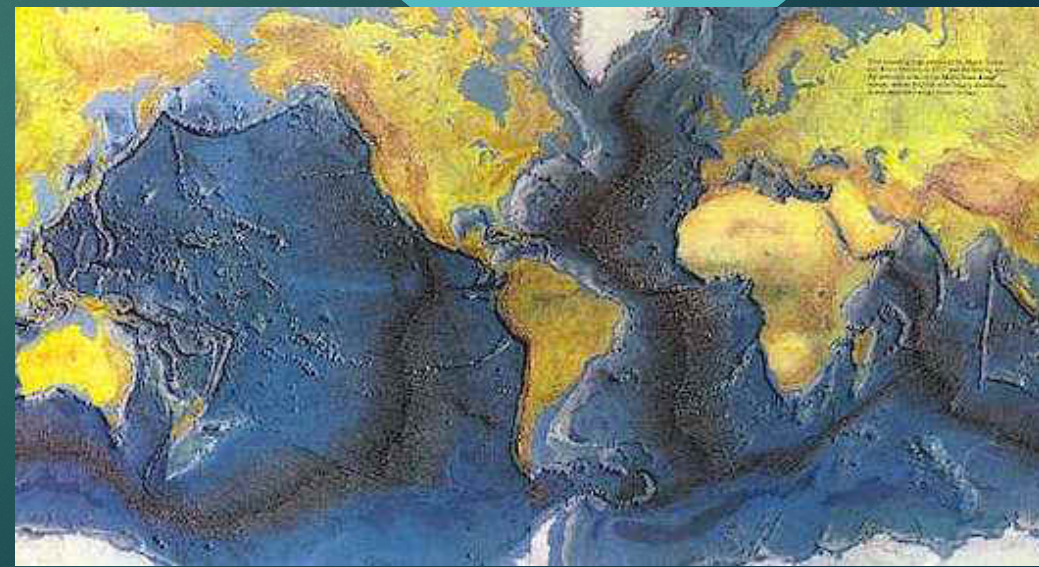
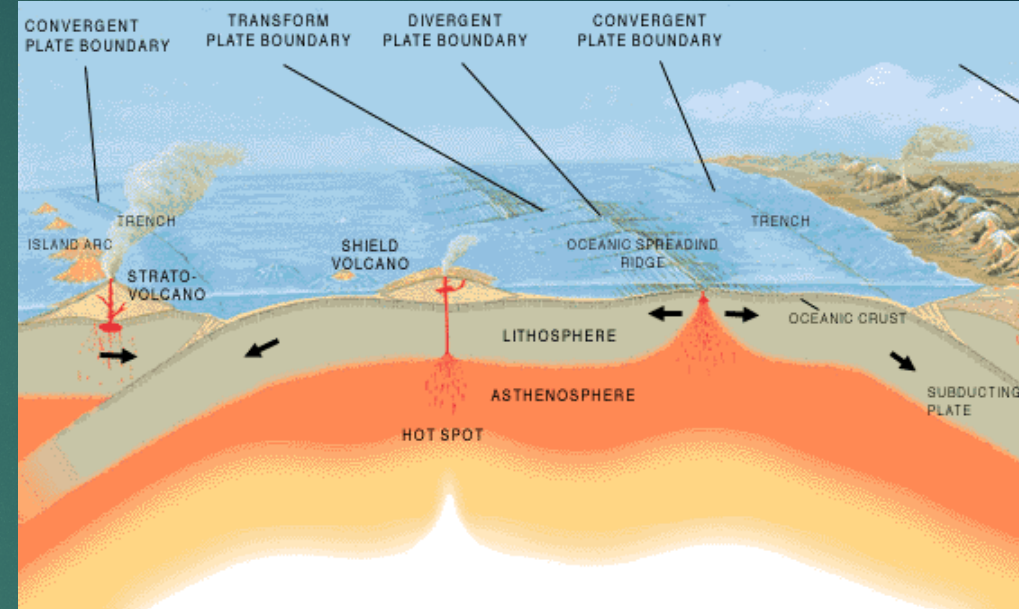
## Biblical Flood Timeline





# The power of rapid, massive water flows

- ▶ Rain not likely biggest factor (only 2" water in atmosphere)
- ▶ Many "big" Factors – erosion and remolding
  - ▶ Hydraulic (shape, size of channels, temperature, quantity of water)
  - ▶ Topographic (slope of runoff, soil type, groundwater)
  - ▶ Meteorological (intensity of rain fall, air mass)
  - ▶ Sedimentary (size of particles, shape/sphericity, sp gravity, chemistry)
- ▶ Compatible with formation of canyons, etc
  - ▶ Cf earlier examples of rapid formations
- ▶ Fed mostly by release (likely under pressure) of underground water stores ("fountains of the deep"- Gen 7:11) with possible collapsing of some crustal elements/uplifting elsewhere

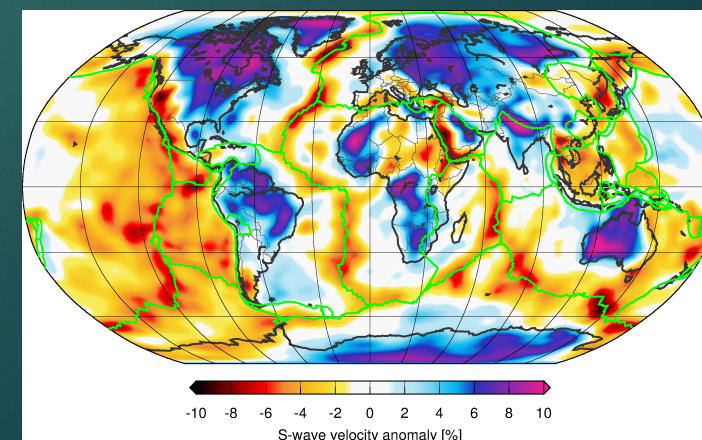
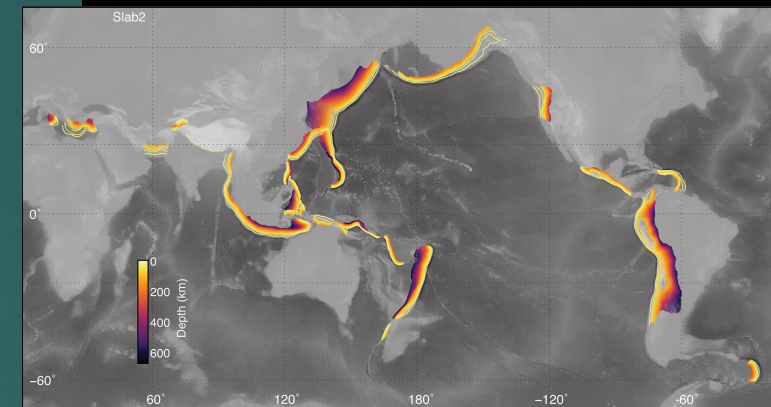
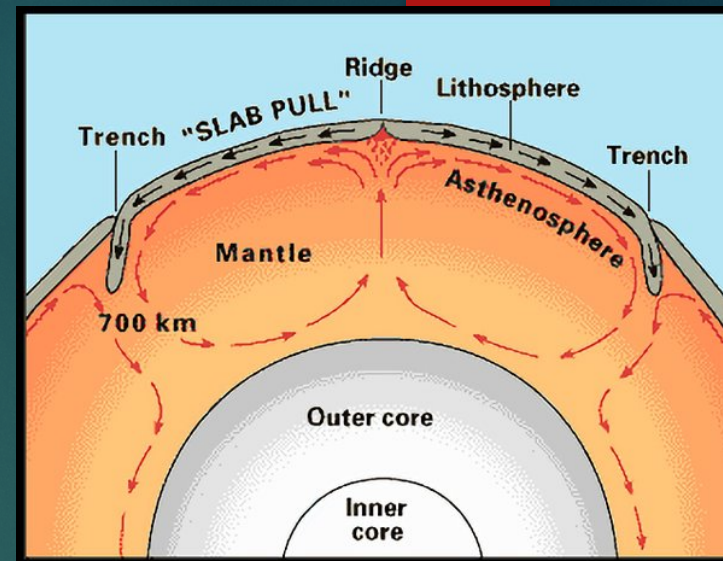




# Tectonic plates

- ▶ Large segments of Earth's crust that shift in response to forces generated from deeper
- ▶ Source of great energy release, to cause earthquakes/tsunamis, when rub, subduction
- ▶ Subduction- denser rocks undermine lighter ones; friction causes heating, faster motion, more displacement (including waves if in ocean)
- ▶ Seismic tomography identifies area there there is deeper and more dense rock as evidence of this process; but standard predictions is should have taken 100My; is c/w Flood, releasing fountains of the deep
  - ▶ “Ring of Fire”

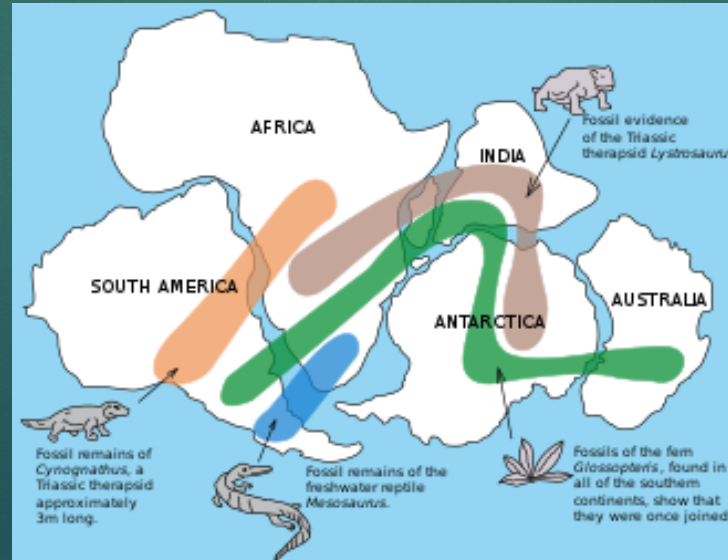
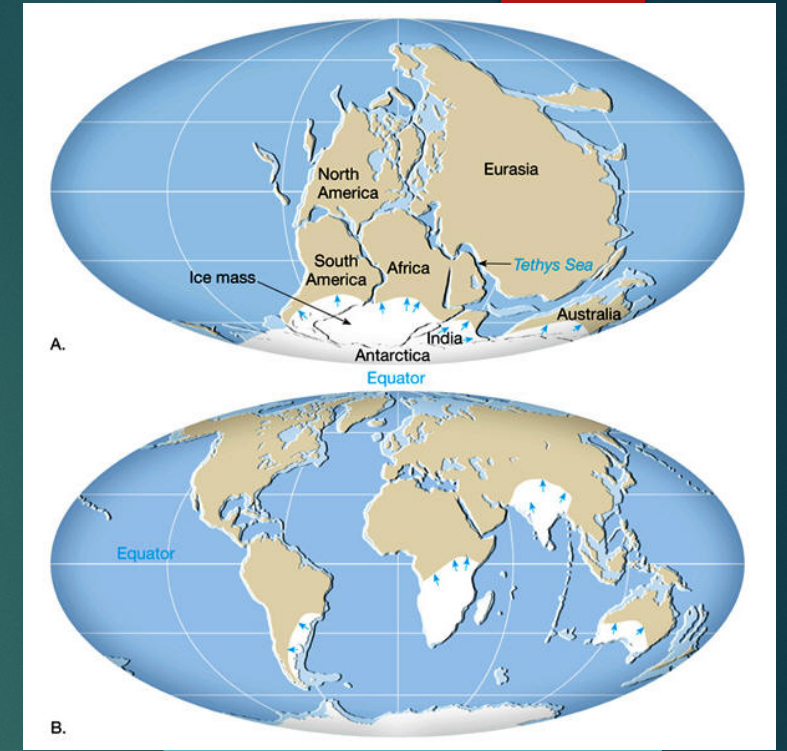
It seems very conceivable that this process would be very active/ causative in context of Flood, release of deep





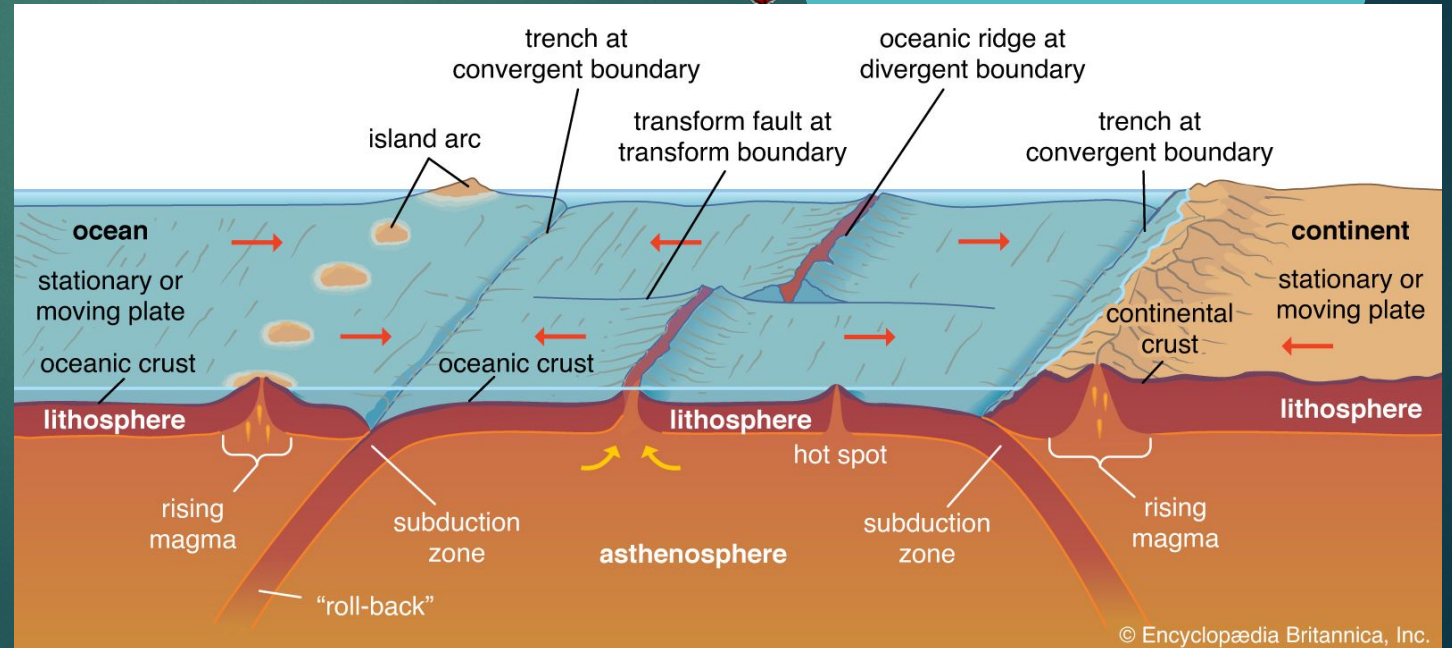
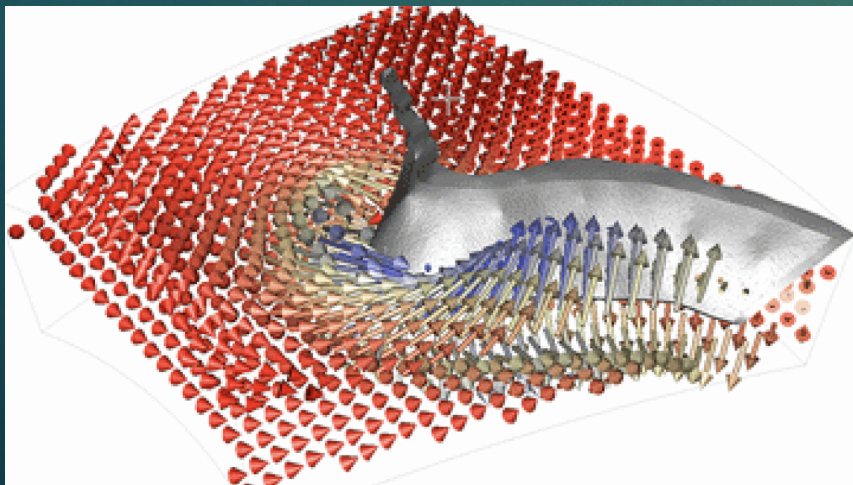
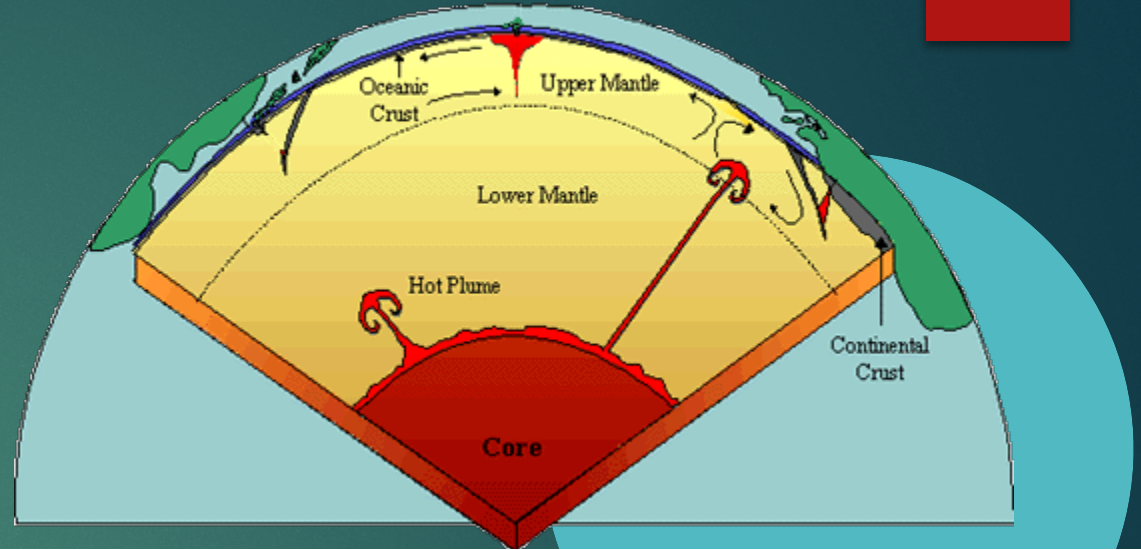
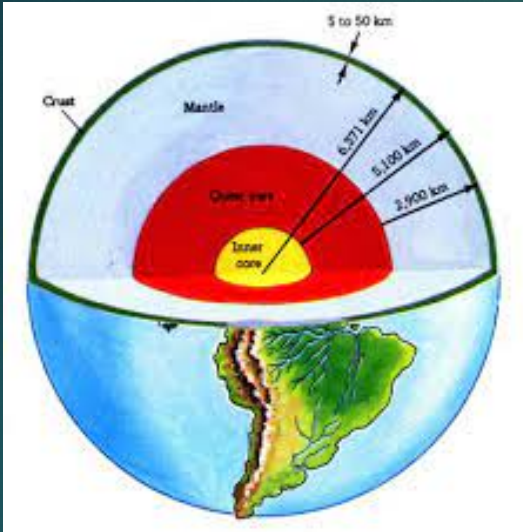
# Continental Drift (Sprint)

- ▶ Hypothesized by Ortelius (1596), Lillienthal (1756), Humboldt (1801, 1845), and Snider-Pelligrini (1858) associating complementary shapes of continents
- ▶ 1"/yr (still) moving away
- ▶ Pangea – single continent initially? (200my break up)
  - ▶ c/w migration; split starting at Flood? Faster separation right after?
  - ▶ c/w tectonic plates – enormous energies can result from rubbing (earthquakes)
- ▶ “Earth Divided”- Gen 10:25
  - ▶ Eber's son, Peleg (=division); Tower of Babel, by language confusion (Gen 11)





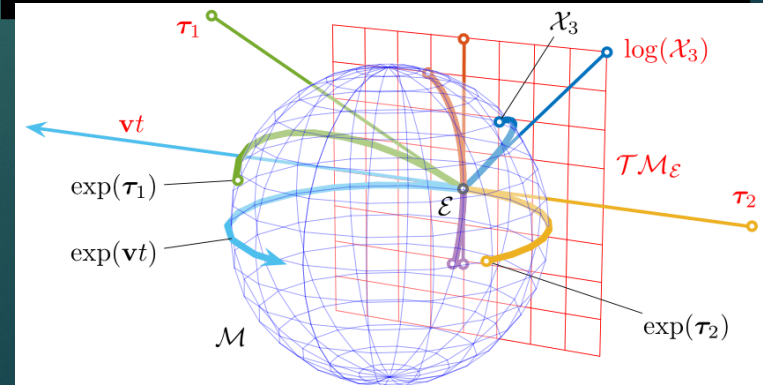
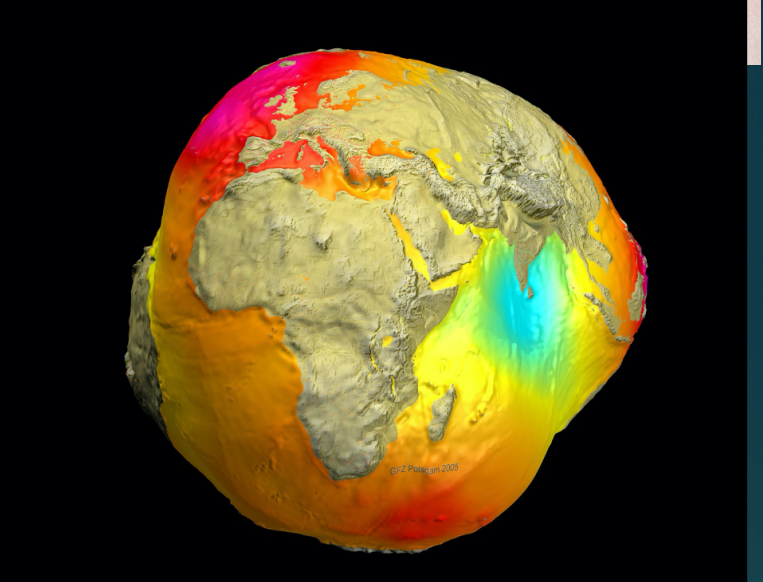
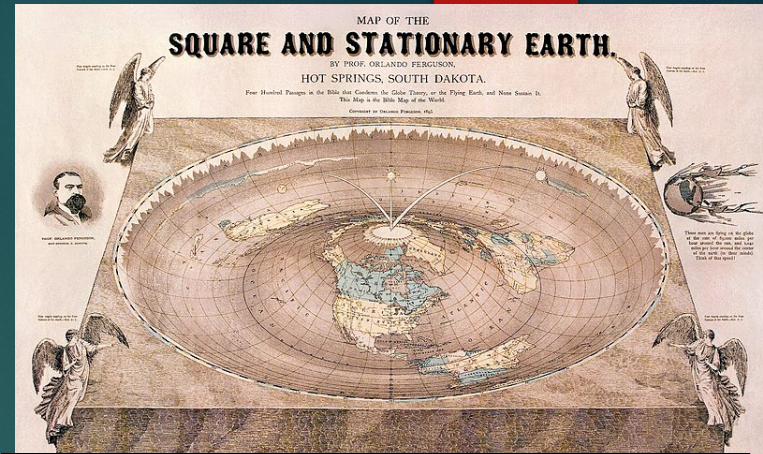
# FAST model of crustal movements (Austin S, et al ICR)





# ?continental drift...

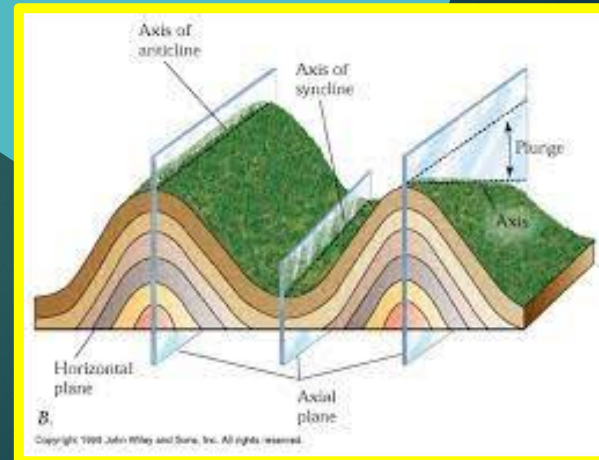
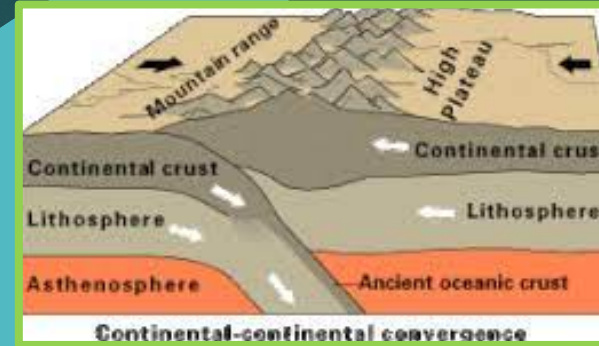
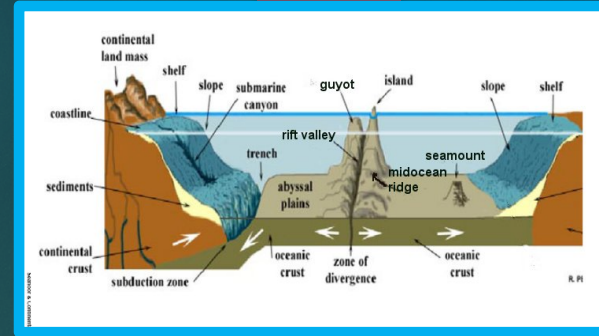
- ▶ I am **NOT** proposing flat earther theory!
- ▶ “four corners of the earth” (Isa 11:12, Rev 7:1 – after opening 6<sup>th</sup> seal)
  - ▶ ?one of those extra dimensions of string theory?
  - ▶ 4 protuberances in the geoid shape of earth
    - ▶ Near Ireland, South Africa, Philippines, Peru
  - ▶ Compare: Lie Theory/algebra/groups/manifolds
- ▶ Compare “pillars of the Earth” (1Sam 2:8) (similar to Job 9:6;Psa 75:3)
  - ▶ Translated as “foundation of the world” (*katabole* – caste down, as in forming, masonry)
  - ▶ ?Solid earth rests upon internal rocks...
  - ▶ I do not know...





# Genesis Flood- geological consistencies

- ▶ Erosion from water flow; consequences of huge underwater (essentially) cisterns...
- ▶ Likely large tectonic movements; sea/ocean basins deeper after flood (Psa 104:5-9)
  - ▶ Volcanic and seismic effects (escaping steam, pressure)
- ▶ Sedimentation, rock formations c/w rapid and extensive flood; some are 40K ft thick!
- ▶ Formation of fossils – rapid, catastrophic water event provide ideal conditions (in contrast to uniformitarianism)
  - ▶ “misplaced” – dinosaur and human tracks (eg earlier)
  - ▶ “living fossils” – should have been totally wiped out, but exist (eg tuatara, “extinct” 135my ago)
- ▶ At least some Fish (plants, at least seeds) likely survived (cf Gen 7: 21-23 – breathing nostrils, creep on face)
- ▶ Current topography
  - ▶ Submerged “islands” in oceans imply more water now at surface (vs global warming)
  - ▶ Contradictions in “ages” of rock layers
  - ▶ Mtn formation more generally local components - uplifted layers (diastrophism); (eg Appalachian Mts) vs folds from tectonic squeeze (orogeny) (eg Rockies) ; but some examples of thin, linear “thrust” lines (eg Lewis, Algonkian (VA) limestone over shale; Materhorn layers are out of sequence for thrust (all the way from Africa!))
  - ▶ variation of crust thickness/layers; Deserts with evidence of water ripples, fossils, etc
- ▶ Higher ocean levels (before Ice Age) – land bridges, easier migration of man and animals
  - ▶ Glaciation (after Flood)

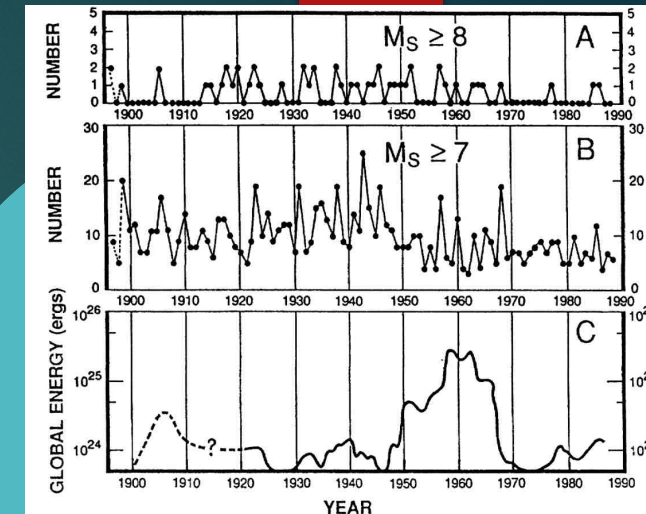




There is Biblical precedent...

# Earthquakes in Scripture – for special times

1. ?Day 3 of Creation (Gen 1:9-10 water gathering together); “seen” by angels (Job 38:4-7; Psa 149:1-6; ?Psa 104:5-6)
2. Noah’s Flood – release fountains of deep, geologic upheaval (Gen 7:11)
3. Crossing Red Sea (Exo 14 does not mention quakes, but Psa 77:18 does) Moses on Sinai (Exod 19:18)
4. Fall of Jericho (Josh 6)
5. Korah’s Rebellion (Num 6:31-33)- earth opened to punish
6. Philistine camp near Geba (1Sam 14:15)- separate Jonathan from Philistines who would have killed him
7. Elijah on Mt Horeb (1Kings 19:11) “still small voice”
8. Uzziah’s quake at Jerusalem – pride in his army/buildings (11Chron 26)- God afflicted (Amos 1:1; Zech 14:5) (also leprosy) (largest in 4K of Palestine)
9. Crucifixion (Matt 27:51-4)
10. Resurrection in Jerusalem (Matthew 28:2) to roll away stone
11. Prison at Philippi (Acts 16:26) Paul’s witness to jailer

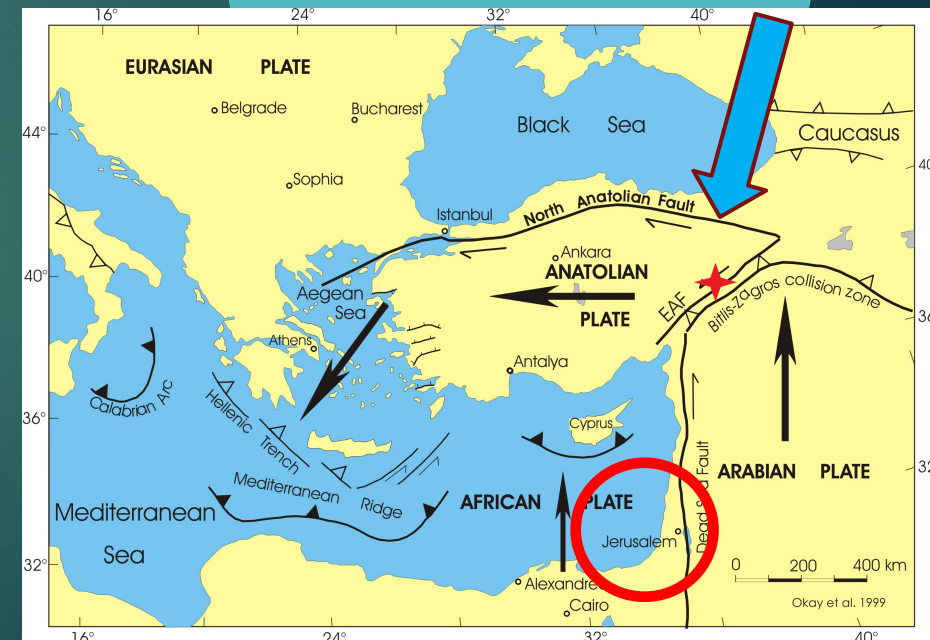


-Increasing in all parameters since 1897 measures  
-Signs of “beginnings of sorrows” (Matt 24:18; Mark 13:8) indicating rapture is near  
-During Trib – Rev 16:18-20  
-Future also, Christ return to Jerusalem (Acts 1:9-12; Zech 14)  
But may be cyclical ...



# Other Flood related

- ▶ **Mt Ararat**, near Yerevan, Armenia; 16,854'
- ▶ There is a fault line that could explain the formation of Mt. Ararat, the apparent landing spot of Noah's Ark
  - ▶ Eg earthquake of 1/24/2020, 1600 injured
- ▶ Cf Rev 16:19 c/w Jerusalem to be split
  - ▶ "And the great city was divided into three parts..."





# Other items, scenarios more c/w Flood (catastrophism)

- ▶ Fossil column
  - ▶ Larger animals, mammals
    - ▶ would have had a couple weeks to seek higher ground before perishing
    - ▶ they occur in clumps vs universal as for paleo/Mesozoic
    - ▶ Found directly on rock beds (c/w upifting to make mountains)
  - ▶ Invertebrates (lower stratum) not as mobile
- ▶ Coal formation – frictional energy > compression in short time
- ▶ Oil formation – not clear but fits w rapid burial
- ▶ **Varve deposits** – laminated rocks from “annual” depositions
  - ▶ Can form in just 4500 yrs rather than 50K
- ▶ **Buried /petrified forests** (trees still vertical) – (e.g. after Mt St Helens); also discovered in Yellowstone, Specimen Ridge
- ▶ Green line shale in WY, CO date to 6 My



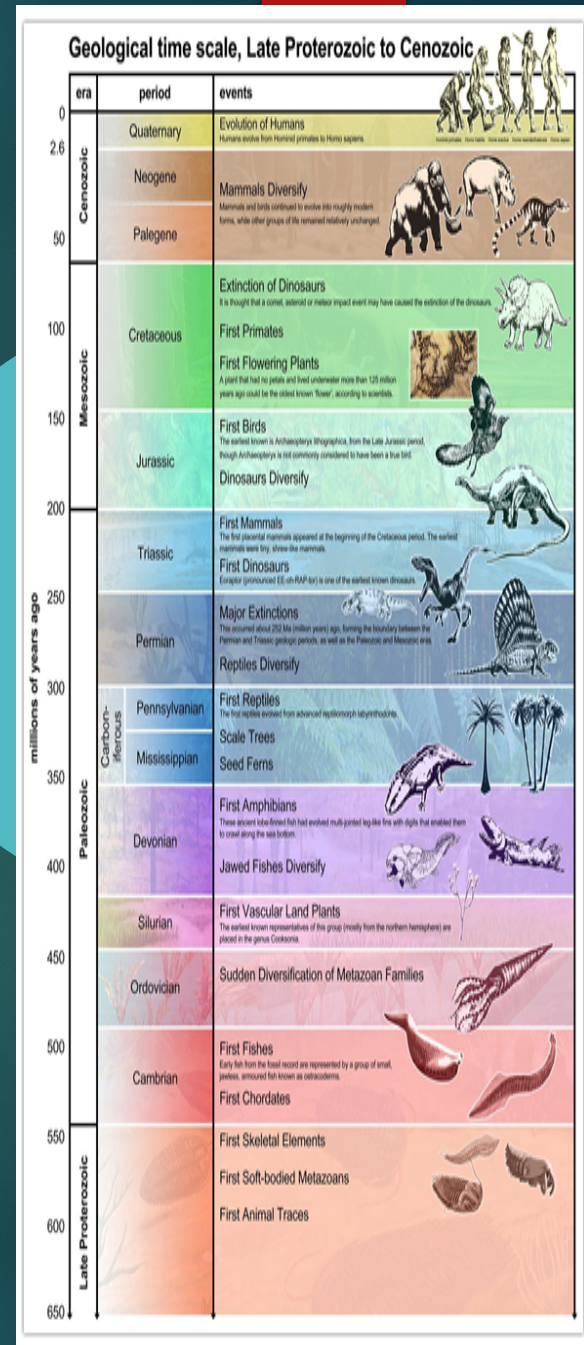
Petrified Forest, AZ



At the risk of redundancy, a summary...

# Fossil Record is c/w Flood

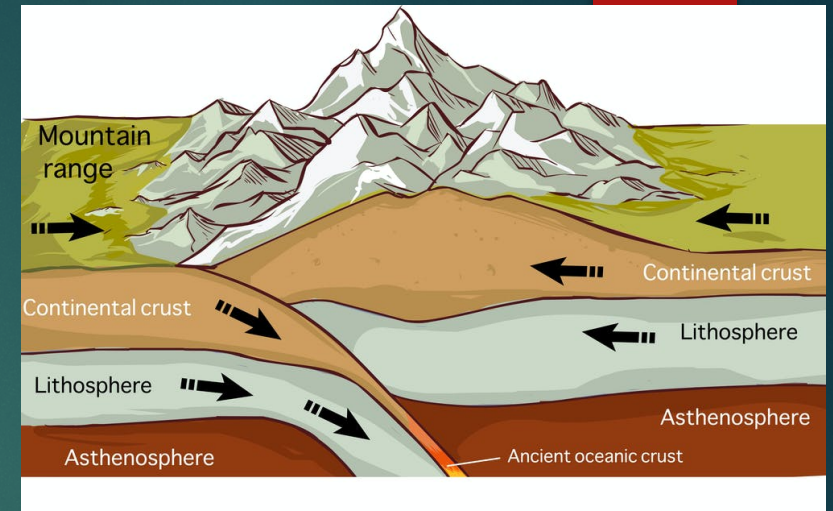
- ▶ More marine invertebrates at bottom, trapped where they lived
- ▶ Lower elevation habitats would be at a lower level
- ▶ Marine vertebrates (fish) higher
- ▶ Amphibians and reptiles a bit higher since at water land interface
- ▶ Plants should be at amphibian/reptile layer – water edge
- ▶ Land sediments and animals higher
- ▶ Mammals and birds highest since most mobility
- ▶ Man would be sparse, at highest level, bodies would decompose after flood waters receded.
- ▶ Larger animals would be found where they (instinctively) lived in groups – ie bunched rather than uniform



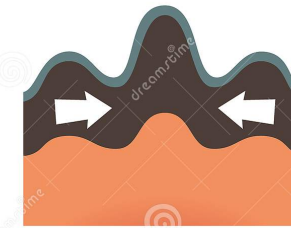


# Mountains

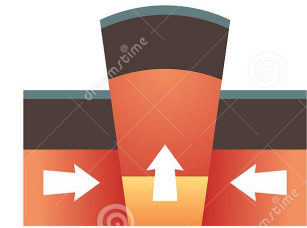
- ▶ Formation
  - ▶ Folding - subduction of tectonic plates
  - ▶ Volcanos
  - ▶ Fault/block
  - ▶ Upwarped
- ▶ All seem c/w Flood and its “company”
- ▶ Appalachians – supposed to be 300 Myo; erosion should reduce by 90% in 20 My; but they are growing larger!
  - ▶ Offset erosion by absorbing moisture
- ▶ Rockies – “newer” no erosion



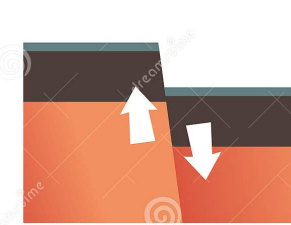
## 4 TYPES OF MOUNTAINS



Folded Mountains



Upwarped Mountains



Fault-Block Mountains



Volcanic Mountains



# Giant Oyster fossils found in Mountains!

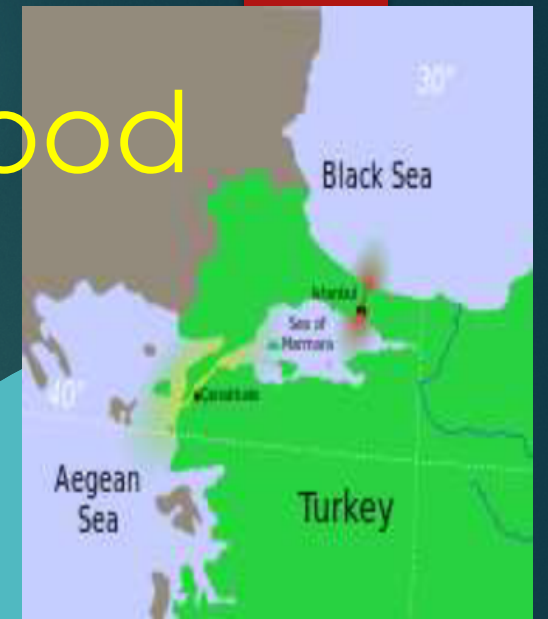
- ▶ Paleontologist A Vildozola found 500 gigantic (up to 12' and 650lbs) fossilized oysters at 13K ft in Andes!
- ▶ But concluded that this was from 200Myr ago with Andes being slowly uplifted from the ocean
- ▶ Similar findings in Sweden and near San Luis Obispo, CA
- ▶ Seems more c/w Great Flood





# Secular Criticisms/alternatives of Flood

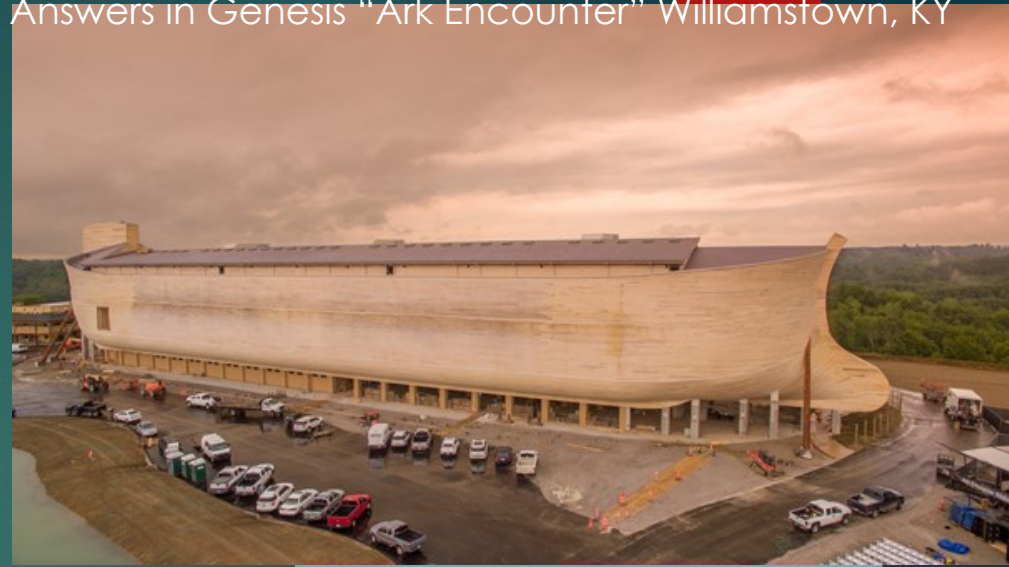
- ▶ Local rather than universal (repeated use of all, etc)
  - ▶ Some surmise Black Sea, bottleneck/reversal of flow across Bosphorous Strait
  - ▶ no mountains in plains of Middle East for reference
  - ▶ But, Greek (kataklusmos) and Hebrew (mabbul) are uniquely applied to Genesis Flood, **not c/w tranquil or local flood**
- ▶ Not literal
- ▶ Miraculous wall of restrained water
- ▶ Distribution of fossils, divergent migration of different animals
  - ▶ (do not have a problem with this for lack of transitional forms)
- ▶ Ark too small/ could not survive (in a bit)
- ▶ too much work to care for so many animals
  - ▶ hibernation, supernatural, “kinds” (maybe not that many)
- ▶ Disparaged as “myth” by “scientists”





# Noah's Ark

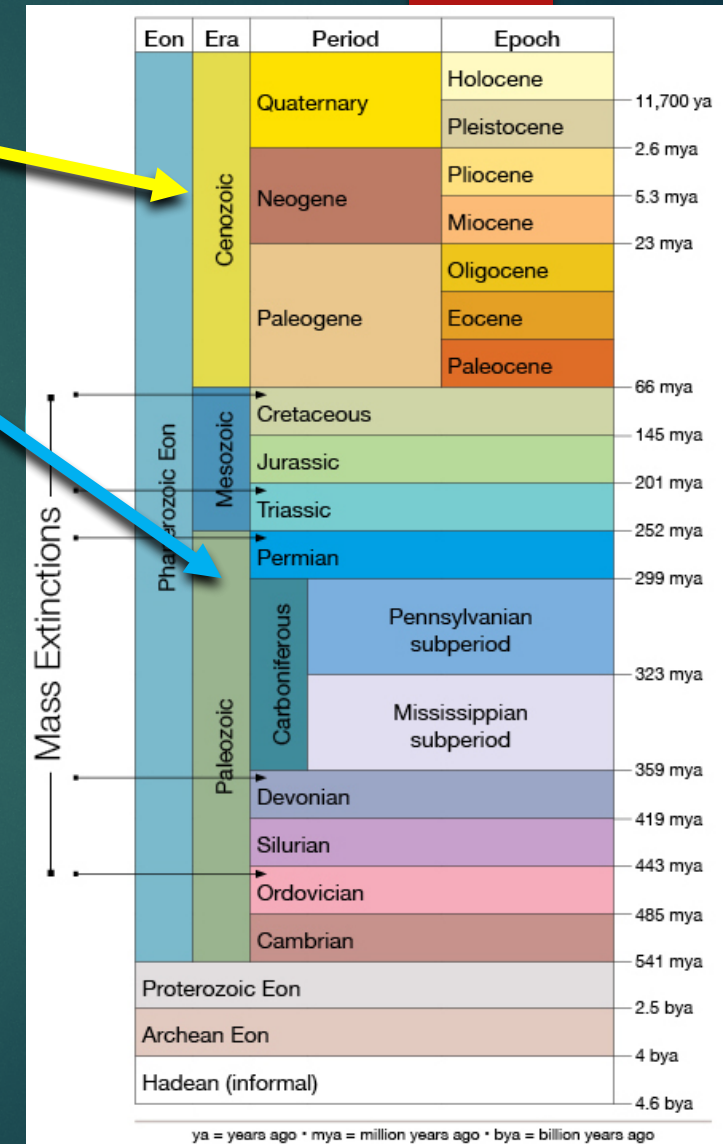
- ▶ 437' x 73' x 44' (~1/2 QEII length; 1/3 largest -tankers)
- ▶ 3 decks
- ▶ 96K ft<sup>2</sup>; 14K tons; 1.4 M ft<sup>3</sup>; ~522 rail stock cars
- ▶ Unsinkable; 15 cubits draught; models (but skeptics)
- ▶ **Feasible that all the animal kinds could fit!**
  - ▶ Perhaps a million species/kinds
  - ▶ But "kinds" eg, several sweet peas, dogs from one since 1700 (note, about 160 different animals listed in Bible)
  - ▶ Enough room for 35K sheep-sized animals
  - ▶ Larger ones could be babies (eg reptiles continually grow)
  - ▶ All herbivores still?
  - ▶ Hibernation?





# Permian Glaciation – Ice Age(s)

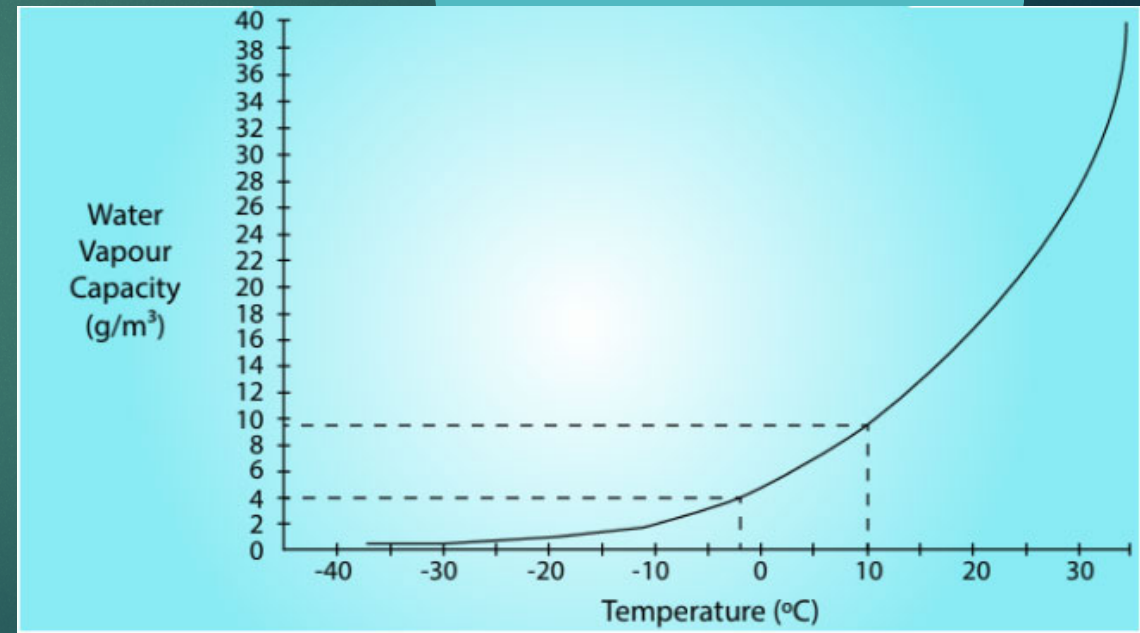
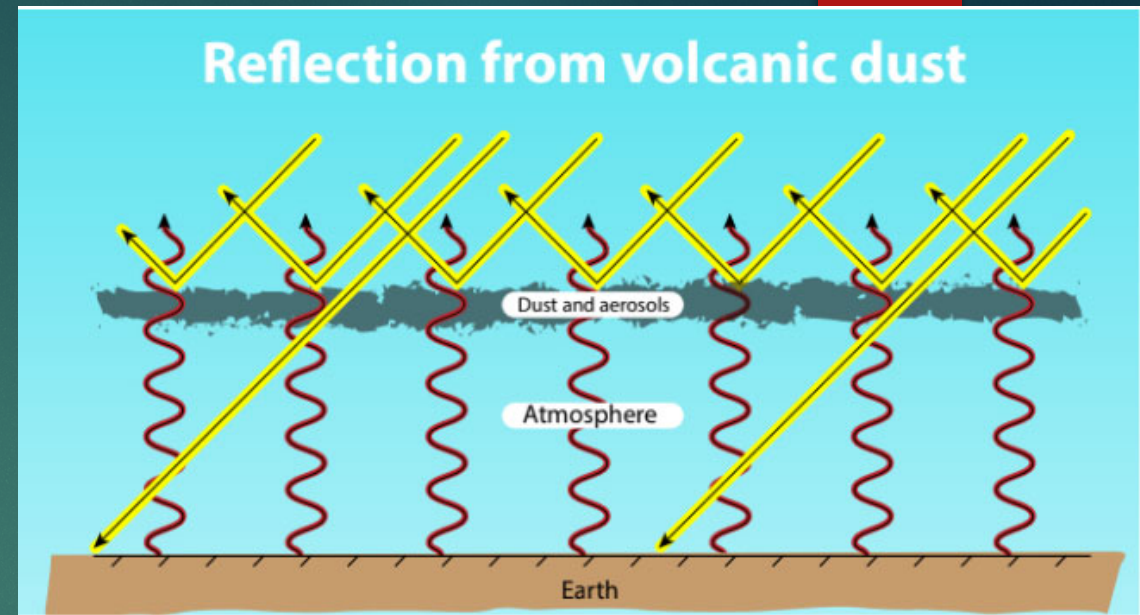
- ▶ PreFlood – uniform, tropical climate with water vapor (greenhouse)
- ▶ This was a time of “mass extinctions” including the dinosaurs...
- ▶ With Flood, collapse of canopy (and fountains of deep)
  - ▶ Loss of “global warming” benefits
  - ▶ Cold, water freezing at polar latitudes (eg mammoths found frozen in Siberia and in Arctic)
  - ▶ Does not have to involve multiple cycles- vanguard areas, large rock forms dragged
- ▶ Volcanoes
  - ▶ release of ash into atmosphere, preventing sun from warming Earth
  - ▶ And CO<sub>2</sub> released
- ▶ ?Sunspot activity
- ▶ Water levels could have been lower – continental shelf, other ocean floor islands





# HEAT model for Ice Age

- ▶ **H**eat and spuing of lava of volcanic eruption (subduction); ?faster tectonic plate movement
- ▶ **E**vaporation- increased as temp increases, saturated atmosphere – then cooling
- ▶ **A**erosolization- lasting decades, reflecting sunlight and allowing precipitation
- ▶ **T**ime – cooling, with precipitation/freezing of vapor at polar regions and gradually further south
- ▶ (modern measurements, lower temperatures with increased volcanic activity, persisting several decades)





# Dinosaur extinction theories

- ▶ Meteor hit in Caribbean
- ▶ Volcanos
- ▶ Mammals ate dino eggs
- ▶ Loss of food source/compet
- ▶ Disease
- ▶ Catastrophic Flood fits well





# Logic: Occam's Razor

- ▶ The simplest explanation is usually the correct one
  - ▶ “principle of parsimony”; empirical, not deductive, etc
- ▶ English Franciscan friar William of Ockham (c. 1287–1347), a scholastic philosopher and theologian
- ▶ Isaac Newton saw its merits: "We are to admit no more causes of natural things than such as are both true and sufficient to explain their appearances. Therefore, to the same natural effects we must, as far as possible, assign the same causes."
- ▶ Similar to the KISS principle
- ▶ **Mies vander Rohe** (1886-1969) – architect/designer pioneer of modernist architecture - minimalism





# Unique Earth

- ▶ Most planets have a barren surface
- ▶ Earth only one with life; Only even adapted for life
  - ▶ Only  $0.45 \times 10^{-9}$  of Sun's energy output strikes Earth but that = 239 T hp (35Khp/person!)
  - ▶ Miracle of water – contracts as cooled (like most substances, except rubber and antimony), but only to  $4^{\circ}$  C, then it expands until it freezes (ie floating ice)
  - ▶ Miracle of air
- ▶ Features of design and youth are c/w Creator



Created specifically for Man!



# Summary

- ▶ Young earth has not been disproven
  - ▶ Radioactive dating systems are flawed/inconsistent
  - ▶ Many other dating systems are not c/w billions of years
  - ▶ Many observations of “old” formations occurring in short time
  - ▶ Sediments, etc not c/w old earth
  - ▶ Magnetic field
- ▶ Flood is more consistent with many phenomenon
  - ▶ Geologic strata, fossil record, Ice Age, volcanos, formation of mountains
- ▶ Principles of thermodynamics, reason (Occum’s Razor) violated
  - ▶ Even evolutionists think more now of catastrophism
  - ▶ Earth is perfectly suited for man

