

Discovering Creation summary #10 Radiometric Dating

By the 20th century, scientific measuring devices were invented that detected “radiometric decay” with the promise of accuracy in dating fossils and rocks.

Atoms of an unstable radioactive "parent" element transform/decay into atoms of a stable non-radioactive element. Scientists are able to accurately determine how long it takes for one half of the radioactive element to decay to the daughter element. That amount of time is called a "half-life", and it varies from element to element.

(See *Evolution's Achilles' Heels* p. 194-206 for a detailed explanation.)

When scientists assign an age to a rock they do so by measuring the amount of parent and daughter elements in the rock, and using the percentage of each they determine the "age" of the rock. They cannot directly measure the age of the rock, they just measure the percentages of the two elements. This means they make **three assumptions:**

- 1) at the time of the formation of the rock, it was 100% "parent" and no "daughter" atoms.
- 2) that no parent or daughter elements have been deposited into or removed from the rock since it first formed.
- 3) the rate of decay from parent to daughter has been constant.

However, none of these assumptions can be known for certain.

The main methods of determining the age of rocks are

Potassium decaying to Argon (K-Ar) with a half life of 1.248 billion years

Rubidium decaying to Strontium (Rb-Sr) - half-life 48.8 billion years

Samarium decaying to Neodymium (Sm-Nd) - half-life 106 billion years

Uranium decaying to Lead (U-Pb) - half-life 4.468 billion years

These methods are used to “date” rocks, but since they have long half-lives, even a tiny amount of daughter element will give a very old age for the rock. For instance, Mt St Helen's in Washington erupted in 1984. Rocks formed from that were sent to a lab to determine their “age”. The results: "Whole rock" measurements gave an age of 350,000 years, and individual mineral model ages range from 340,000 to 2.5 million years depending on which mineral within the rock was used.

Also, "Whole rock" ages for lava flows from Mt. Ngaurahoe in NZ formed between 1945 to 1975 gave “ages” up to 2.5 million years, and "isochron" ages for these same rocks ranged from 133 million to 3.9 billion years! Similar erroneous dates have been assigned to Hawaiian lava flows. (EAH p. 212)

When rocks of known ages yield ages that are grossly inaccurate, how could anyone have confidence in the dates of rocks of unknown ages? There is no question that the rocks are young and **these particular dating methods are wrong.**

C14 is a different matter.

Carbon 14 is only used for to date organisms that once were living - plants and animals. And C14 has a half-life of only 5730 years, so after 15 half-lives (90,000) years

there is not enough C14 left to detect. Any organism that has been dead for over 100,000 years would have no detectable C14 left. Yet samples of **coal (which are “dated” at 300 million years old) and diamonds (which are dated at over one billion years) have shown C14 dates of about 55,000 years.** Again, there should be NO C14 in those samples, yet **they all have measurable amounts.** This is after carefully checking to make sure there is no contamination in the samples. The C14 measurements indicate all the coal and diamonds were formed about the same time. (EAH p. 206-210)

In about the last 5 years **every fossil that has been tested** has had similar amounts of C14. It shows that **nothing is more than about 60,000 years old.** But what about 60,000 years, if the Bible says the earth is only 6000 years old?

If the earth was created 6000 years ago, there would have been **no C14** in the atmosphere at first, but it would have slowly started to accumulate. Anything from the first 1500 years (till the flood of Noah) would have had very little C14.

Also, we know **the earth's magnetic field hinders the formation of C14**, and we know that the magnetic field is decreasing very rapidly. (The best estimates say it is decreasing by half about every 1450 years. That means 20,000 years ago it would have been so strong that it would have boiled all the water off the surface of the earth!). Which means that when the magnetic field was stronger the formation of C14 would have been much slower, and old samples would measure much older than they really are.

Furthermore, since the Flood buried a huge amount of C12 (not C14) that was previously active in the biosphere, it is probable that the level of carbon dioxide in the pre-flood atmosphere was also much higher than it is today. This would account for the bountiful, lush vegetation required to produce vast amounts of coal. So the ratio of C14 to C12 would have been much smaller than it is today, thus giving “dates” many thousands of years older than they actually are. (EAH p. 209)

And the intense volcanism associated with the flood (when the fountains of the earth were broken open and tectonic plates broke apart) would have dumped billions of tons of non-radioactive carbon into the atmosphere, further diluting the ratio of C14 to C12. The net result is that 6000 years fits beautifully with the C14 measurements.

How objective are the dates of rocks?

In 1986 the world's leading science journal, *Nature*, announced that the most ancient rock crystals on earth according to isotope dating methods, are 4.3 billion years old. Scientists obtained 140 zircon crystals from a single rock unit and subjected them to uranium/uranium concordia (U/U) and uranium/thorium concordia (U/Th) dating methods. One crystal showed a U/U date of 4.3 billion years, and the authors therefore claimed it to be the oldest rock crystal yet discovered. However, all 140 crystals from the same rock unit gave statistically valid information about that rock unit. No statistician could ever condone a method which selected one value and discarded all the other 139. In Also, the other 139 crystals show such a confusion of information that a statistician could only conclude that no sensible dates could be extracted from the data. A further problem is that the 4.3 billion-

year- old zircon, dated according to the U/U method, was identified by the U/Th method to be undatable. An unbiased observer would be forced to admit that this contradiction prevents any conclusion as to the age of the crystal. But these authors reached their conclusion by ignoring the contradictory data. This was published by the top scientific journal in the world!

Another example in *Nature* (334:607–609, 1988). They found what might have been the world's oldest rock crystals, but unfortunately they were too old! They extracted diamonds from rocks in Zaire and found by the potassium-argon method that they (the diamonds) were six billion years old. But the earth is supposed to be only 4.5 billion years old. So they decided they must be wrong. They admitted, however, that if the date had not been contradicted by the 'known' age of the earth, they would have accepted it as valid.

Helium is the second lightest element (after hydrogen), tiny and "slippery" and does not unite with any other elements, so it should and not be found in any "old" rocks. It would all have escaped – like it does out of balloons. Yet Zircon crystals dated 1.5 billion years by U - Pb have Helium that measures about 6,000 years. The U-Pb method has to be in error. Those crystals cannot be "old", (the Helium would have escaped) but they fit perfectly with the Biblical time frame. (EAH p 210-211)

Another geologic fact that has bearing on the age of the earth: In the **Black Canyon of the Gunnison** (Colorado) the Entrada Sandstone sits directly on top of Pre-Cambrian "basement rocks" with over a billion years of strata "missing", and yet there is no erosion between the two layers. Is it possible to have a billion years of weather, earthquakes, etc, and show no erosion? Or does it better fit with evidence for a world wide Flood?

Also, the amount of Salt in oceans is only 0.16% of what would be expected if the oceans were 3.8 billion years old. And only 0.004% of the nickel expected; and only 0.003 of the sediment expected.

For more info, go to creation.com and search for "101 evidences for a young age of the earth and the universe" by Don Batten

Dinosaurs were not "prehistoric". They were created on day 6, along with humans.

Note what GOD said. *"Look now at the behemoth, which I made along with you; he eats grass like an ox. See now, his strength is in his hips, and his power is in his stomach muscles. He moves his tail like a cedar; the sinews of his thighs are tightly knit. His bones are like beams of bronze, his ribs like bars of iron. He is the first of the ways of God; only He who made him can bring near His sword."* (Job 40:15–19). Then in Job 41 **God speaks of Leviathan:**

¹³ *Who can strip off its outer coat? Who can penetrate its double coat of armor?*

¹⁴ *Who dares open the doors of its mouth, ringed about with fearsome teeth?*

- 15 Its back has rows of shields tightly sealed together;*
16 each is so close to the next that no air can pass between. ...
23 The folds of its flesh are tightly joined; they are firm and immovable.
24 Its chest is hard as rock, hard as a lower millstone. ...
30 Its undersides are jagged potsherds, leaving a trail in the mud like a threshing sledge.
31 It ... stirs up the sea like a pot of ointment.
32 It leaves a glistening wake behind it; ... 33 Nothing on earth is its equal—

An Irish writer around AD 900 recorded an encounter with a large animal with thick legs and strong claws and described it as having 'iron' nails on its tail—could that have been a Stegosaurus? Remember the Stegosaurus carved just 800 years ago in stone on the temple at Angkor Wat in Cambodia. And brass engravings on Bishop Bell's tomb from 1496 at Carlisle Cathedral in Britain depict creatures that any 21st-century child would instantly recognize as dinosaurs, along with depictions of various fish, a dog, a pig, a bird, and other familiar animals. How could the person engraving those depictions have known what dinosaurs looked like, three centuries before the fossil bones of such creatures were systematically dug up, described, and named?

Chinese pottery, embroidery, carvings, etc., are famous for being prominently adorned with images of dragons. In the traditional (complex) Chinese script, the character for 'dragon' is seen as representing the creature—the right part of the character being the spines and tail of a dragon. Furthermore, of the twelve symbols used in the Chinese lunar calendar cycle, eleven are real animals (pig, rat, rabbit, tiger, etc.), suggesting that the remaining one, the dragon, is equally real.

The fossilized remains of a small dinosaur (psittacosaur) have been found in the belly of a fossil mammal named Repenomamus robustus. This specimen, and another newly discovered large Repenomamus fossil, are a real surprise for evolutionists because evolutionary assumptions say that mammals living during the so called 'age of the dinosaurs' had to be small to avoid the huge reptiles. Evolutionary researchers who discovered the remains of at least five types of grasses in dinosaur coprolites (fossilized dung) say "it was a complete shock" It was a shock because according to the standard evolutionary line, grasses evolved 10 million years after the extinction of the dinosaurs. It is interesting that the Bible speaks of the sauropod-like Behemoth eating grass like an ox (Job 40:15).