The Earth: Is It Young or Is It Old?

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You Need To Be Careful With Extrapolation

When scientists take a range of data and infer what happens beyond that range, we call it extrapolation.

The most importation thing to remember: You should only extrapolate over a range that is small compared to the range over which the data have been collected!

To believe in an ancient earth, you have to do the exact opposite. You have to take measurements made for the past 100 years or so, and extrapolate them over billions of years!

How Do You Measure The Age of Something?

- You need a process that happens at a **constant rate.**
- You need to know that **rate.**
- You need to know the **initial conditions**.
- You need an **isolated** system.

There are at least **68** such processes in Creation which have been identified. They give ages for the earth that range from 100 years old - 4.6 billion years old

See: *What is Creation Science?* by Morris and Parker

The Earth's Helium Inventory

Helium is a light gas. It is produced on the earth mainly by the radioactive decay of certain atoms in the earth's crust. Because it is both light and unreactive, it tends to escape the rocks and enter earth's atmosphere. Once it reaches the atmosphere, it can escape into space *if* it has enough energy to escape earth's gravity.

- The rate of production of helium is based on the rate of radioactive decay, the amount of radioactive isotopes, and the rate at which helium escapes from rock. These are all easily measurable and well-understood.
- The rate of escape is based on the amount of helium in the atmosphere and the energy distribution of the helium atoms in the atmosphere. These are all easily measurable and well-understood
- The result is that helium is entering the atmosphere faster than it is leaving. If the atmosphere had **no helium** to begin with, the earth could be no more than **2 millions years old**.

- This figure is an upper limit. We *know* that radioactive decay was faster in the past, because there were more radioactive isotopes. Also, the earth used to be more geologically active, which releases even more helium into the atmosphere.

See: http://www.answersingenesis.org/creation/v20/i3/old_earth.asp

http://www.answersingenesis.org/tj/v8/i2/helium.asp

Dendrochronology

Oldest Living Tree: "Methuselah," a bristlecone pine **4,771 years old**

There is no theoretical limit on the age of bristlecone pines. Nevertheless, the oldest one has under 5,000 rings. This is actually an upper limit, as trees are known to form double rings occasionally.

See: http://www.answersingenesis.org/home/area/faq/docs/tree_ring.asp

Earth's Magnetic Field

Facts:

⇒ Since 1890, it has been decaying.
⇒ During times in the past, it has reversed.
⇒ Some planets have one, some don't.

Why does the earth have a magnetic field?

Physicists think that here are large electrical currents flowing through the core of the earth. There is a lot of evidence to support that these currents are the source of earth's magnetic field.

The Rapid-Decay Theory

God created the earth out of pure water (2Peter 3:5 - "...and the earth was formed out of water and by water.") with all of the molecule's spins aligned. This created an enormous magnetic field. Those atoms would quickly de-align with time, but their initial magnetic field would set up a current in the earth's core. The current would then decay rapidly (on the order of thousands of years) due to friction.

The current can be reversed under the influence of great tectonic activity.

Assuming other planets were formed this way, you can use the model to calculate other planets' fields.

The Dynamo Theory

During the formation of the earth, the earth's rotation caused separations of certain chemicals in the molten outer core. These chemicals were charged, and their mutual attraction began to force them back together. Because of certain conditions of temperature, complex currents were set up in the liquid of the outer core, producing random electrical currents, which result in a magnetic field.

This is similar to a **dynamo**, which can be shown to convert thermal energy or kinetic energy into magnetic or electrical energy.

Since the dynamo is a result of random currents, the magnetic field it generates will be somewhat erratic, and it will decay, increase, and sometimes reverse, depending on the specific conditions at the time.

The dynamo should last as long as the earth keeps spinning. Assuming that other planets have similar dynamos allows you to predict the fields of other planets.

Problems With The Dynamo Theory

- Cannot correctly predict whether or not a planet will have a magnetic field:
  Mars has no planetary field, dynamo theory predicts one.
  Mercury has one, dynamo theory predicts none.
- Using earth as a calibration, it is wrong on the strength of the other planets' fields.
- Rock samples from the moon and Mars both indicate that they each had magnetic fields at one time. Now neither do. The dynamo theory predicts that a planet or moon that has a magnetic field will always have one.

Success Of The Rapid-Decay Theory

- Correctly predicts the presence or absence of a magnetic field for each planet.
- Using earth as a calibration, it is correct on the strength of the other planets' fields
  In 1984, the theory was used to predict the magnetic fields of Neptune and Uranus. Neither had been measured. In the 1990's, Voyager measured those fields. The dynamo theory was 10,000 times off, this theory was right on the money.
- Correctly predicts the fact that Mars and the moon both had a magnetic field at one time.
  The Mars prediction was made BEFORE this was determined.
- Correctly predicted the fact that Mercury's magnetic field is weaker now than it was when we measured it last (1975).

See: http://www.creationresearch.org/crsq/articles/21/21_3/21_3.html

https://creation.com/images/pdfs/tj/j26_2/j26_2_4-6.pdf

Another Reason To Believe in a Young Earth

In 2005, Mary Schweitzer found **soft tissue** in a *Tyrannosaurus rex* femur that was supposed to be **65 million years old**!

Laboratory studies indicate that soft tissue decays about **50 weeks** or so, it is thought that proteins break down after only **30,000 years**, unless special circumstances were present

Many evolutionists scrambled for another explanation, such as bacterial biofilms:

Schweitzer and her colleagues showed that the soft tissue contained a protein that would be typical for dinosaurs but not bacteria.

Famous paleontologist Jack Horner refused the offer of a $10,000 to his museum to use carbon-14 dating on the tissue. He said that "the spin" creationists can get off it "is not going to help us."

[https://www.youtube.com/watch?v=szHNDAMfA0s]

The $10,000 grant was above and beyond the cost of the test. In addition to the $10,000, the grant included the cost for four other artifacts of the museum's choosing!

Soft Tissue in Dinosaur Bones Is Common!

Paleontologists took poorly-preserved dinosaur bones from a museum to look for soft tissue.

"They're very scrappy, individual broken bones. I can't even tell you what dinosaur they come from."

[http://www.bbc.com/news/science-environment-33067582]

They found red blood cells and proteins!

[http://www.nature.com/ncomms/2015/150609/ncomms8352/full/ncomms8352.html]

A "65 Million Year Old" Triceratops Horn

The horn was soaked in weak acid for a month to remove minerals, and strips of soft, brown tissue were recovered.

Since this tissue could be a lot of things, they looked at it under a microscope.

They Found Exactly What You Would Expect If It Is Original Bone Tissue!

An Electron Microscope Revealed This:

"Filipodial extensions were delicate and showed no evidence of any permineralization or crystallization artifact and therefore were interpreted to be soft."

[Mark Hollis Armitage and Kevin Lee Anderson, "Soft sheets of fibrillar bone from a fossil of the supraorbital horn of the dinosaur Triceratops horridus," *Acta Histochemica*, 115(6):603-608, 2103]

How Did Evolutionists Respond?

The study's principle investigator, Mark Armitage, was fired from his university position!

According to the lawsuit that has been settled, one university official stormed into his office after the paper was published and shouted, "We are not going to tolerate your religion in this department!" [http://www.thecollegefix.com/post/18549]

Using some of those funds, he continued his research and has isolated individual, soft cells!

Here Is The Current Record Holder

A microscopic examination of a worm (*Sabellidites cambriensis*) fossil that is supposed to be 550 million years old revealed:

"Minerals have not replicated any part of the soft tissue and the carbonaceous material of the wall is primary, preserving the original layering of the wall, its texture, and fabrics."

[Moczydlowska, M., F. Estall, and F. Foucher, "Microstructure and Biogeochemistry of the Organically Preserved Ediacaran Metazoan Sabellidites," *Journal of Paleontology* **88(2)**:224-239, 2014.]