

DATING METHODS

by Bill Jahns

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1. How do Geologists dating methods work?

“Radiocarbon is continuously created in the atmosphere through bombardment of nitrogen-14 (^{14}N) by neutrons created by cosmic radiation. ^{14}C , with a half-life of 5730 years, decays back to ^{14}N As long as the production rate remains constant, the radioactivity of natural carbon remains constant because rate of production balances the rate of decay....“While an organism is alive and is taking in carbon from the atmosphere, it contains this balanced proportion of ^{14}C . However, at the death the balance is upset, because replenishment by life processes such as feeding, breathing and photosynthesis ceases. The C^{14} in dead tissues continually decreases by radioactive decay” (*The Dynamic Earth* by Brian J Skinner and Stephen C. Porter, 1989, pp. 138-139). By measuring the amount of ^{14}C and comparing that amount to the original, a date for the death of the organism can be obtained.

The theory works like this: If you can know the amount of C^{14} in the organism before it dies, then you can measure the amount of C^{14} in the organism and come up with a date.

ILLUSTRATION: Use a bottle filled with water. Start to drain the water. Measure the water at first – then after 1 minute. You can calculate backwards by taking the amount of remaining in the container and the rate at which the water goes into the container.

ASSUMPTIONS:

- A. You must know the original amount of water in the jar.
- B. The rate at which the water flows must be consistent.
- C. You must have a good measurement of the amount of water in the jar at then end

Dendrochonology:

It was asserted in the past by some in the Church that carbon dating was proven accurate by dendrochonology (tree ring dating). Supposedly, they had found trees which showed rings, then dated by C-14, showing that C-14 dating was accurate before the flood.

I was personally very disappointed to find that there are serious questions about the length and accuracy of these dating methods. Any tree ring sequence that goes beyond 5000 years is highly questionable. The oldest living tree is about 4,900 years (page 168, *Creation-Evolution, The Controversy*, by R. L. Wysong).

There are noted archaeologists who will NOT use C-14 dating because of these problems. David Rohl refuses to use C-14 dating to date the Egyptian chronologies because he has found this method inaccurate. On page 384 (Pharaohs and Kings) he states: "In the late 1970s, when C-14 dates were corrected by use of the bristlecone pine calibration curves, a 'problem' soon became apparent for the third millennium BC and earlier times....He suggested that the calibration of C-14 dates (based on American trees) was not applicable to Egypt....This, however, was very unsatisfactory because they had to select out of 25 of 55 dates, a **45 per cent rejection rate** which they themselves describe as 'disappointing' - -a splendid example of the arbitrary selection of dates by historians.....A. Mazar refuses to use C-14 dating for Palestinian archaeological remains of the fourth and third millennia BC."

David Rohl goes on to show that he believes the length of the Egyptian dynasties has been extended by hundreds of years because of erroneous interpretations of evidence.

Bristlecone Pine trees can produce more than one ring in a year. We have a member attending in Baker City, Oregon who works for the Department of Agriculture. He stated that many times in Oregon, trees will produce two rings in a year. Western Oregon has a wet climate which causes a ring to be produced (sometimes) during both the spring and the fall. This type of error would mean that the C¹⁴ results would be misleading!! Remember, that the climate on the earth after the flood was very wet, and these unstable conditions probably caused trees to produce more than one ring.

The Oregonian 12/27/2000

Biggest tree may be 4,000 years younger than thought

The world biggest tree is apparently younger than had been thought.

"General Sherman," a sequoia 275 feet tall and 30 feet across at its base in California's Sequoia National Park, had been thought to be 5,000 to 6,000 years old. But a new analysis by ecologist Nate Stephenson of the U.S. Geological Survey concludes that the towering tree is not more than 2,000 years old.

Stephenson analyzed pencil thin, foot-long cores of wood removed from seven of the largest known sequoias, including the Sherman tree. The analysis concluded that many of them including the Sherman, are much younger than had been thought. Stephenson reports in a paper to be published in the botanical journal Madrono. "The Sherman tree isn't so large because it is exceptionally old, but because its growing so fast," he said, "each year it adds enough wood to make a tree 1 foot in diameter and more than 100 feet tall."

Are the results accurate – especially in the ancient past?

There are factors that would cause dating methods to be in error in the past. Remember that the most common dating methods use radioactive elements like C¹⁴ and Potassium Argon.

The Bible states that there was a universal flood in the ancient past (approx 2700 years ago or perhaps a larger number).

What was the level of C¹⁴ in the ancient past? Without a measurement we don't really know for sure. We know that the C¹⁴ level today varies. This has been demonstrated by recent tree rings. There is no way to know for sure before the flood what that rate was.

Here is a technical journal which shows some of the problems with these dating methods:

Jueneman, Frederic B., "Secular Catastrophism," *Industrial Research and Development* (June 1982), p. 21.

"The age of our globe is presently thought to be some 4.5 billion years, based on radiodecay rates of uranium and thorium. Such 'confirmation' may be short-lived, as nature is not to be discovered quite so easily. There has been in recent years the horrible realization that radiodecay rates are not as constant as previously thought, nor are they immune to environmental influences. And this could mean that the atomic clocks are reset during some global disaster, and events which brought the Mesozoic to a close may not be 65 million years ago but, rather, within the age and memory of man.

"The mechanism for resetting such nuclear clocks is not clear, but knowledge has never really stood in our way in the quest for ignorance. Meanwhile, such prehistoric 'creatures' as Nessie from Loch Ness or Champ from Lake Champlain, as well as others, may not be avatars at all, but survivors from the last catastrophe.

"Even as we."

It can be shown that radioactive decay rates vary under different pressure. Other factors such as water leaching into a formation can also cause anomalous dates.

Gentry, Robert V., *et al.*, "Radiohalos in Coalified Wood: New Evidence Relating to the Time of Uranium Introduction and Coalification," *Science*, vol. 194 (October 15, 1976), pp. 315-318.

p 315

"*Abstract.* The discovery of embryonic halos around uranium-rich sites that exhibit very high ²³⁸U/²⁰⁶Pb ratios suggests that uranium introduction may have occurred far more recently than previously supposed. The discovery of ²¹⁰PO Halos derived from uranium daughters, some elliptical in shape, further suggests that uranium-daughter infiltration occurred prior to coalification when the radionuclide transport rate was relatively high and the matrix still plastically deformable."

pp 316-17

"Such extraordinary values admit the possibility that both the initial U infiltration and coalification could possibly have occurred with the past several thousand years."

p 317

"Since it seems clear that the U radiocenters formed during the initial introduction of U and if this were as long ago as the Triassic or Jurassic are generally thought to be, then there should be evident not only fully developed, but overexposed U halos as well."

p 317

"If remobilization is not the explanation, then these ratios raise some crucial questions about the validity of present concepts regarding the antiquity of these geological formations and about the time required for coalification."

DR GENTRY'S STORY: Some have said – ‘No scientist disputes the overall dates given by radiometric methods!’ Dr. Gentry is one scientist who found evidence that coal was produced much closer to the present that evolutionists believe. As soon as the scientific world realized the significance of his discovery – he was excluded from the scientific journals. Creationists constantly try to get their articles in the Scientific Journals and are rejected.

Different methods of obtaining these dates.

Interestingly enough – new methods of measuring C¹⁴ can change the results of these tests also.

Article from National Geographic: November 1990

‘The oldest known Mayans turns out to be younger than archaeologists originally believed. (Par) The remains of a woman found below a layered platform at a site called Cuello in northern Belize had been thought to be more than 4,000 years old.. As a result of new dating methods, about a thousand years have been trimmed from the chronology. Norman Hammond of Boston University, who began digging a Cuello in the 1970's says the remains now are believed to be from about 1200 B.C., still earlier than any other known Maya settlement. (Par) The accelerator mass spectrometer allows scientists to analyze the bones of the ancient Maya without severely damaging them. The new technique can date carbon samples weighing only a few milligrams; a specimen the size of a match head will do.’

NOTICE: A new method of dating using C¹⁴ was used and different dates (@25% different) were obtained.

POTASSIUM ARGON DATES:

This method is used to date formations in the millions of years.

POTASSIUM ARGON DATING. Stansfield, William D., *The Science of Evolution* (New York: Macmillan, 1977), 614 pp. Stansfield was at the University of California, Santa Barbara.p 80‘Several methods have been devised for estimating the age of the earth and its layers of rocks. These methods rely heavily on the assumption of uniformitarianism, i.e., natural processes have proceeded at relatively constant rates throughout the earth's history.’p 84 ‘It is obvious that **radiometric techniques may not be the absolute dating methods that they are claimed to be.** Age estimates on a given geological stratum by different radiometric methods are often quite different (sometimes by hundreds of millions of years). There is no absolutely reliable long-term radiological ‘clock.’”

Maddougall, J. D., 'Fission-Track Dating,' Scientific American, vol. 235 (December 1976), pp. 114-122. Maddougall was Associate Professor of Geological Research, Scripps Institute, UCSD.

p 115

"Uranium 238 is the only significant producer of tracks in terrestrial rocks and in natural and man-made glasses."

p 118

"The fourth assumption presupposes that the concentration of uranium in any specimen has remained constant over the specimen's lifetime... A combination of elevated temperatures and ground-water percolation can leach away a proportion of the uranium present in rock crystals. The mobility of the uranium is such that as one part of a rock formation is being impoverished another part can become abnormally enriched. Such changes can also take place at relatively low temperatures."

p 119

"The spontaneous-track densities in the calcite crystals [growing in the marrow cavities of old bones, among them the fossil bones of the genus *Αυστραλοπιτηχευς* **unearthed in the limestone caves of South Africa**] **proved to be much lower than we had expected, suggesting that the fossil bones were by no means as old as other evidence indicated....** It appears that exposure to ambient temperatures over a period of a million years or so is enough to anneal existing fission tracks in calcite and thereby give rise to anomalously young age determinations."

MOUNT ST. HELENS IS NOW GIVING ANOMALOUS DATES:

Austin, Steven A., 'Excess Argon within Mineral Concentrates from the New Dacite Lava Dome at Mount St. Helens Volcano,' *Creation Ex Nihilo Technical Journal*, vol. 10, no. 3 (1996), pp. 335-344.

p 335

"*Abstract.* The conventional K-Ar dating method was applied to the 1986 dacite flow from the new lava dome at Mount St. Helens, Washington. Porphyritic dacite which solidified on the surface of the lava dome in 1986 gives a whole rock K-Ar 'age' of 0.35 ± 0.05 million years (Ma). Mineral concentrates from this same dacite give K-Ar 'ages' from **0.35 ± 0.06 MA to 2.8 ± 0.6 Ma**. These 'ages' are, of course, preposterous. The fundamental dating assumption ('no radiogenic argon was present when the rock formed') is questioned by these data. Instead data from this Mount St. Helens dacite argue that significant 'excess argon' was present when the lava solidified in 1986... This study of Mount St. Helens dacite causes the more fundamental question to be asked—how accurate are K-Ar 'ages' from the many other phenocryst-containing lava flows worldwide?"

CONFLICTS BETWEEN DATING METHODS:

Carbon 14 – is only valid for about 40,000 years or so. Because ancient strata are dated many millions of years old – you should not be able to date them with C-14. However, this is not the case.

Read from Creation Ex-Nihilo – Page 44, March—May 2000.

They took some wood from an early Jurassic formation – (189 million years old by evolutionary standards) and dated it using the accelerator mass spectrometry method and found that in spite of the idea of this being millions of year old they could date it using C-14.

They used fossil wood and the C¹⁴ age came out to be from 20,700 years to 38,820 BP – before present. You should not be able to do this – instead Geologists of this world simply must ignore this data because it conflicts with their ideas about the age of these formations.

The amount of C-13 in the sample indicates that the C-14 did not come from contamination. You either reject the C-14 age – or you reject the Potassium Argon ages given. Ages given by geologists are often in conflict.

CONCLUSION: It is indeed a dating game that is played – there is no reason to doubt the flood – the emergence of man a few thousand years ago – as he is today on the basis of “modern” dating methods. They probably are off in many cases. There may also be cases where they are correct. I think that the truth of the Bible and its assertions about the flood and the creation of man should take precedence over the assertions of “scientists” who in most cases do not believe in God or the truth of the Bible.