Do radioisotope methods yield trustworthy relative ages for the earth's rocks?

John Baumgardner's article on radioisotope methods, in *J. Creation* **26**(3):68–75), seems to be (in part) a response to my article in the August issue, since some of the very arguments he uses in this paper regarding zircon crystals he also uses in his letter of response to my article in this same issue of the Journal. Although I agree with his main premise, I am struck by two major things in his article. The first is that, as every good creationist knows, evidence is always interpreted. Specifically, Baumgardner seems to take as axiomatic that the Great Unconformity *is* the beginning of the Flood, and interprets all of the data to fit with this assumption, even though not all of the data fit this assumption very well. However, the Great Unconformity could just as likely be the result of orogeny (mountain building) during the last major supercontinent cycle during the Flood.

The second is that in his figure 3, showing the distribution of apparent ages of zircon crystals taken from various places, the peaks correspond very well with the beginning of the various proposed supercontinents that seem to have formed and broken up during the Flood. Specifically, the peaks at 1.2 Ga, 1.9 Ga, and 2.7 Ga correspond with the formation of supercontinents Rodinia, Columbia, and Vaalbara (Ur) respectively. Thus, the data cited by Baumgardner seems to be explained readily in my proposed model as a result of Flood processes, but it cannot be well explained by Baumgardner, except as an odd relic of the creation process.

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» **John Baumgardner replies:**

Mr Stenberg seems not to grasp the staggering consequences of his proposal that the earth's granitic continental crust, with its large inventory of radioactive elements and an average thickness of some 35–40 km, formed during the Flood. Stenberg seems to imagine that the radioactive elements so abundant in today's granitic rocks were somehow introduced into pre-existing crystals via some unspecified magmatic process apart from a wholesale melting and recrystallization of the rock. To me, and I suspect to most earth scientists, such a thing is inconceivable. Potassium, after all, is a major element in alkali feldspars such as orthoclase ($KAlSi_3O_8$). A typical granite contains 35% or more alkali feldspar. The only imaginable way for such rocks, with their large inventories of U, Th, and K, to form is to crystallize from a melt. If that much molten rock were present at the earth's surface during the early portion of the Flood, how could any life-forms have survived to be fossilized later?

Stenberg is insisting that cooling be by naturalistic means, but what conceivable naturalistic process could cool so much rock in the span of a few weeks? If the granitic crust comprising the continents today did not appear until during the Flood, what then was the "dry land" mentioned in Genesis 1:9? What was it that distinguished the "dry land" from the "seas" on Day 3 in regard to topography? If there were not a fairly large topographical difference between the sea bottom and land surface, where did the water filling today's oceans reside? If the granitic crust comprising the continents today did not appear until during the Flood, where on the earth did all the pre-Flood plants and animals reside that were later buried and fossilized on the surface of the present-day continents?

To me problems of having the granitic rock comprising the bulk of today's continental crust cool and crystallize during the Flood are insurmountable. It seems much more reasonable to associate the "dry land" of Genesis 1:9 with the granitic continents and the onset of the Flood with the explosive appearance of fossils in the sediment record. Mr Stenberg's primary difficulty in being able to accept these conclusions seems to be his reluctance to allow for God's supernatural activity during creation and the Flood, despite the plain meaning of 2 Peter 3:3–6.

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Russell Humphreys' cosmology

Russell Humphreys' *new creationist* cosmology seems to suffer from four major problems. His model lacks elegance; his mechanics may be flawed; his liberties with general relativity are in question; and his claims are short on empirical evidence. Since, from a cosmology-building perspective, any single one of these indictments is serious enough to disqualify his efforts, it seems that he would have to rise above all four to satisfactorily deliver a credible and viable end-product to creationists.

Model not elegant

Humphreys' model is not elegant. Processes move along in starts and stops and even reversals. In the 2nd installment of Vardiman and Humphreys' three-part cosmology