eral, it is very qualitative and parts are seemingly far-fetched. For instance, Pacific Ocean trenches are believed to be formed by downward sinking due to an upraised mid-Atlantic Ridge about 16 km high. For this mechanism to be plausible, he needs to explain, among other arguments, that strains can be transmitted through the centre of the Earth. He also presents many charts in his book comparing his model to others. I find these charts artificial.

Specifically, I take issue with the demise of the Siberian mammoths early in the Flood—the evidence overwhelmingly points to a very late Ice Age extinction.[2] His ideas on the Ice Age need much work. A new chapter in his book made a case that the origin of comets and asteroids was by water jets shooting water and debris from the mid-ocean ridges into space. The post-Flood dam-breach hypothesis for the origin of the Grand Canyon lacks geological evidence,[3] while the origin of the canyon fits naturally into the channelized phase of the Recessive Stage of the Flood.

In regard to Ken Malley's suggested mechanism for plate tectonics, the decay of the magnetic field is likely only one source of heat and is probably small. Is cooling from magnetic field decay significant enough over 6000 years? How would this relate to catastrophic plate tectonics during the Flood?

Graham Fraser wonders why all pre-Flood ocean floor would be subducted, especially in the Pacific Ocean. I wonder that also, although in Baumgardner's favour there are a number of reports of continental crust in the western Pacific and isolated discoveries of 'old' rocks and 'Paleozoic' fossils on the ocean bottom.[4] I question Baumgardner's assumptions behind the deduction that all pre-Flood ocean floor disappeared down a subduction zone. I find the interpretation of Gen. 1:9–10 too vague to support the belief of one continent before the Flood. It is seas (plural) that are gathered into one place and not the land.

I most certainly agree with Robert Lawrence that there is no basis for precise correlations of fossils across different parts of the world. I would say that the problem is exacerbated when the index fossil system is microfossils or paleoflora. I constantly run into examples of fossil and dating manipulations in these dating schemes. Here is one I read not too long ago:

> 'Indeed, it is sometimes necessary to "side-step" traditional paleobotanical taxonomy, which is often hindered by political and regional biases (ensuring a highly specialized local but limited global view), as well as stratigraphic biases (with what is effectively the "same" fossil plant type being assigned to different genus and species depending upon its age).'[5]

Renaming the 'same' fossil from different 'age' strata also occurs with the widely used microfossil, foraminifera.[6] There are many more assumptions that go into such fossil dating schemes and correlations.

I would agree with Adrian Bates that Baumgardner's model is an elegant computer model, but I need to see more evidence that the model accurately represents the lower crust and mantle. I also need to see the justification of various assumptions to the model, such as the validity of plate tectonics, and more details worked out before I consider that the catastrophic plate tectonics model is indeed the mechanism of the Flood.

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Our galaxy is the centre: quasars and quantized redshifts

I was very interested in Russ Humphreys' paper 'Our galaxy is the centre of the universe, "quantized" redshifts show'.[1] He presented a clear case for the significance of quantized redshifts in galaxies. I wonder if he has an explanation or suggestions for a similar effect seen in quasars (QSOs).

Hoyle *et al.* in their book[2] present a table of QSOs, which are clearly associated with nearby active galaxies. When the associated galaxy's redshift is taken as the cosmological or expansion component (z_c) of the QSOs redshift (z_0), and subtracted off, a distinct series of preferred redshifts are seen in a power spectrum. Also, it is assumed that there is a Doppler (z_d) redshift due to line-of-sight motion of the ejected QSO from the parent galaxy. Both blueshifted and redshifted velocities (cz_d) are seen with magnitudes $\leq 0.1c$. From $(1+z_0) = (1+z_c)(1+z_d)(1+z_i)$ the intrinsic redshift (z_i) then may be calculated.

When applied to the tabulated 16 QSOs, the resulting intrinsic z_i = 0.30, 0.60, 0.96, 1.41 and 1.96. This is remarkable, and strongly indicates that the association of the QSOs and the parent galaxy is real. Even more remarkable is that these intrinsic redshifts are generated by the relation $(1+z_{n+1}) = 1.227(1+z_n)$,[3] where n is an integer index of quantization. It has been shown that this corresponds to a difference between peaks of $\Delta \ln(1+z) = 0.205$.

Clearly, for these objects, this is not the result of the Hubble law but

a redshift resulting from some as yet unknown physics in the heart of these QSOs. Even so the distribution is so clearly related to the index (n) it could not be an accident or have its origin in random processes. Could it be that it is a signature of the Designer who made the QSOs, similar to the signature seen in the distribution of the galaxies?

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Russell Humphreys replies:

The above facts about quasars that John has noticed are very interesting and could lead to new understanding of the mystery of what quasars are. I want to encourage him and other creationists to vigorously pursue research into pioneering areas like this.

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What about using real data?

Being familiar with Dr Russell Humpreys white hole cosmology model, I thoroughly enjoyed and appreciated his article 'Our galaxy is the centre of the universe, "quantized" red shifts show'.[1] Especially because it provides some observational evidence. If possible, I would really like to see the results of his Figure 8 for the real existing redshift measurements of galaxies, rather than for a computer-simulated scenario, and then also for an observer not only 2 million light-years from the centre, but also when situated in a few other galaxies. To my mind that would really be very strong evidence for the uniqueness of the position of our galaxy.

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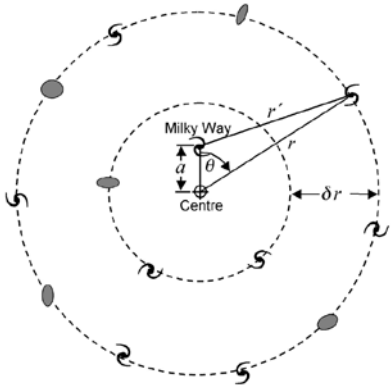

Russell Humphreys replies:

I appreciate Hennie Moulton's remarks and agree with his suggestion to use actual redshift data in the simulation of the effects of displacement of our vantage point. That's a tougher job than it appears at first sight, because the 'quantized' redshift papers have not presented the data in that form, but rather as 'power spectra'. That is, they are Fourier analyses of the redshift spacings, not the redshifts themselves. However, several massive redshift surveys have been published recently, and some enterprising creationist astronomer might have fun using them in such a project. Not me, however—my research plate is full!

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The crimes of Galileo (continued)

Dr Schirrmacher's *TJ* article about the Galileo controversy[1] was a much-needed corrective to the misotheistic propaganda floating around, much of which is parroted by compromising churchians who also miss the real point.[2] His conclusion, much supported by the evidence he documented, was that Galileo's first opponents were the scientific establishment of his day, who persuaded the Church that an attack on their favoured Ptolemaic cosmology was an attack on Scripture.

One of us (AK) thought that the original decree seemed to disagree, because it said:

> '… having held a doctrine that is false and contrary to the divine and Holy Scripture … .'

So he submitted a letter a year ago saying that he was 'perplexed' by the following statement in Schirrmacher's paper:

> 'The court of Inquisition did not accuse Galileo of teaching against the Bible, but of disobeying a papal decree.'

But on further study, we think that Schirrmacher was right, and the perplexity may be solved by understanding some of the hair-splitting in church politics of the day. One good source is *The Sun in the Church* by the science historian, John Heilbron.[3] In this book, favourably reviewed by the secular science journals *New Scientist*[4]