

Empirical data support for seafloor spreading and CPT

I enjoyed the latest *J. Creation* 30(1) as usual, and would like to make comment on an overview by Timothy Clarey for a response by him or any one else who feels qualified to comment.

I agree with the majority of the article but want to comment on the timing of the event—particularly referring to figure 4 in the article, which shows the correlation of the families of oils and their similarities between Brazil and West Africa. My comments and deductions from this are that maybe the Catastrophic Plate Tectonics (CPT) event occurred after the Flood as the geology that formed the oil is most likely to have come from the Flood and therefore seems to have happened before the splitting of the continents. There is, I believe, evidence in the sedimentary layers of both continents that it maybe happened either late in the Flood or after the Flood. Further evidence would need to be gathered from the geology of these areas about which layers were continuous through these regions and which ones may have been deposited after the continental split occurred.

I do not know the details of the timeline of how CPT occurs and whether it would be possible for it to initiate in the oceans and cause flooding over the whole earth before continental separation happened, and whether there would be a gap of at least six months to allow enough time for sedimentation and consolidation to precede the continental separation. The other thing to be considered is whether the newly formed sediments would have slumped and deformed

when splitting occurred. This is likely to have been when fine grained layers with some water still in them were split before they became solidified. However, the evidence for this may be concealed by subsequent erosion, unless the slumping happened over a large area. If the sediments were soft, they would have been very susceptible to erosion anyway.

If these investigations showed that CPT could only occur after, or in, the very late stages of the Flood, then we would still be looking for a trigger for the Flood, but it would not mean that CPT did not occur, but just that it may have happened as a result of instability that had been caused by the Flood, rather than being the causal agent.

The other thing that seems to me to have happened mostly after the Flood is the large amount of volcanic activity. Certainly some happened during the Flood, but there was likely, to my mind (without doing an actual investigation, which may prove me wrong), a large amount continuing on immediately after the Flood judging by the presence of volcanic layers on top of the sedimentary layers.

If anyone knows of information that would shed light onto any of these matters I would appreciate your input.

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» Timothy L. Clarey replies:

Although I appreciate the comments on my Catastrophic Plate Tectonics (CPT) article,¹ I respectfully disagree with most of the conclusions of the author. This disagreement is not a battle of worldviews, as claimed, but one of data selection and selective data filtering on their part as much as anyone. There are only two worldviews, acceptance of God's Word as truth and everything else (including secular humanism). I think nearly all young-earth creationists would agree God's Word is true, the Flood was global, the earth is young (~6,000

years old), and creation occurred in a literal six-day week as described in the Bible. Since we are in agreement on the absolute truth of God's Word, this is not really a battle of worldviews. We all start with the Bible, contrary to the claim in their comment above.

Unfortunately, the comments made by the author follows the same format as most critiques of CPT, filtering out the vast majority of the data in support of plate movement and avoiding the major data sets that support CPT; instead, concentrating on relatively minor unresolved issues, and/or offering little in a viable alternative to explain the observable data.²

I especially take issue with what I see as a rather flippant assertion that the data sets discussed in my original paper are historical and not empirical.¹ The author's judgment that my data sets are faulty and untrustworthy surely can only have been arrived at by filtering my data through his own bias. All six types of data sets presented in my original paper are repeatable, observable, and empirical and not merely historical as this author contends. Anyone can go out and take temperature measurements of the ocean crust across the ridges and get the same pattern in support of seafloor spreading as presented in the geologic literature. Anyone can collect oil samples from offshore Brazil and West Africa and get the same chemical matches across the Atlantic Ocean. Anyone can map the ocean bathymetry and get the same results showing the presence of elevated ridge systems in every ocean. Anyone can tow a magnetometer across the ocean ridges and get a consistent and identically symmetrical reversal pattern on each side of the ridge. And anyone can collect seismic data across the ocean trenches and observe subducted ocean lithosphere extending downward into the mantle to a depth of about 700 km. These data sets are all independent of time constraints, repeatable, observable,

and give consistent results again and again. How is this merely history?

The rapid plate movement rates in the past may be historical, but the present-day patterns observed in the rocks and reflecting this past movement are empirical, especially since the Flood event was not that long ago. The Flood was a historical event that happened once in the past, but much empirical evidence exists that confirms it was reality.

The so-called trump card in all this disagreement is the mantle tomography data, which plainly shows subduction of ocean lithosphere. Examination of the data shows uninterrupted and continuous ocean lithosphere at the surface, bending and extending downward into the upper mantle.² Similar mantle tomography data have been collected across nearly every subduction/trench system in the world. The results are always the same. How does the above author explain all of these data? By crafting a weakly documented claim that these data are ‘interpreted’ images. But in reality, there is little leeway in the velocity models that produce these images. Like any seismic data, geophone receivers are spread out, a source of energy produces elastic waves that reflect and refract off differences in density and velocity in the internal earth, and the return signals are recorded and processed by computer. A well-constrained velocity model produces the images we see in the literature.^{2,3}

How are tomographic results tested empirically? Firstly by repetition and secondly by plotting earthquake foci beneath the ocean trenches (the Benioff Zone). Foci clearly plot along and within the subducting slab, confirming the correct depth and angle of the lithosphere in the mantle.^{2,3} A similar process is done nearly every day in the search for oil and gas. Oil wells verify that these seismic images are correctly constrained spatially and in depth. Seismic data, and tomography, is tested empirically. There is very little difference in the results even if

the velocity model differs from try-to-try or place-to-place. All reasonable velocity solutions give the same result. Ocean lithosphere is clearly observed to have been subducted at trenches all over the earth.

In his comment above, the author never adequately addressed the mantle tomography nor many other data sets that fully support CPT, including providing an explanation for the unique magma chemistry observed above subduction zones and the earthquake epicentre patterns that delineate the plate boundaries.¹ These data are still best explained by seafloor spreading and plate movement as discussed previously.^{1,2} As I’ve asked before, where is the alternative model that explains all these data?² Simply claiming data is not empirical is avoidance of the real issue.

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References

1. Clarey, T.L., Empirical data support seafloor spreading and catastrophic plate tectonics, *J. Creation* 30(1):76–82, 2016.
2. Clarey, T.L., Catastrophic plate tectonics and plate tectonics—a comparison of two theories, Letter to the Editor, *J. Creation* 30(2):28–29, 2016.
3. Clarey, T., Embracing catastrophic plate tectonics, *Acts & Facts* 45(5):8–11, 2016.