

## Empirical data support for seafloor spreading and catastrophic plate tectonics?

We are grateful for the article by Dr Clarey defending Catastrophic Plate Tectonics (CPT) as an important concept in biblical history.<sup>1</sup> The exchange (and defense) of ideas is critical as we work together as Christians in defining biblical geologic history.

Clarey asks an insightful question at the close of his introduction:

“Are we to ignore all scientific papers put forth by non-Christians and only accept research by scientists holding our own worldview?”<sup>2</sup>

We believe this is the *most important* question facing young-earth creation science today.<sup>3</sup>

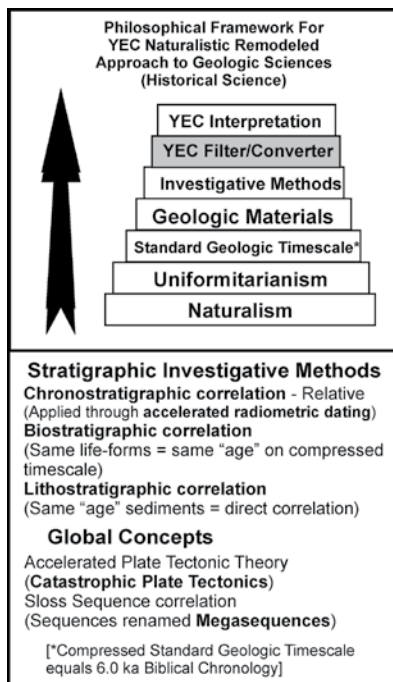
### Establishing a worldview

Clarey does not seem to understand the three competing worldviews (i.e. naturalism, naturalistic remodellers, and biblical reconstructionists) in creation science. While young-earth creationists are Bible believers, much of their biblical geologic history is derived from extrabiblical sources built on a foundation of naturalism.

Recently, an effort to unify Scripture and naturalism has been offered by several young-earth creationists through converting/shifting/compressing naturalistic geologic concepts (figure 1). This perspective is being promoted by naturalistic remodellers.<sup>3</sup> The ‘conversion’ of some of these ideas has developed to become CPT, accelerated radiometric age-dating, and time

compression of the standard geologic timescale.

Other young-earth creationists have called for a reconstruction of all geologic sciences through a biblical worldview (figure 2). This is the perspective of biblical reconstructionists.<sup>3</sup> Clarey laments that for reconstructionists “only a generalized timescale has been developed ... and details from the vast majority of site-specific locations are still lacking”.<sup>2</sup> He cites only one



**Figure 1.** Remodellers accept (either knowingly or not) the philosophic worldview of naturalism in support of a time-compressed standard geologic timescale. The timescale is renamed a geologic column and is viewed not as conveying absolute but relative time within the 6,000-year Earth history. It still follows the Precambrian-to-Holocene time progression. Most importantly, the Remodellers apply a young-earth creationist (YEC) filter to the naturalistic geologic concepts and methods that conforms them to a biblical framework. But this often creates problems that require ‘miracles’. The three investigative stratigraphic methods are adjusted but remain consistent with the time-compressed standard geologic timescale. This worldview follows evolutionary progression, but in a time-compressed manner, and would support biostratigraphy defended with naturalistic datasets.

reference in defense of this statement. This is unfortunate because numerous articles (and a book<sup>4</sup>) have been written by reconstructionists applying the biblical geologic timescale at many different locations across the United States and Australia.<sup>5</sup>

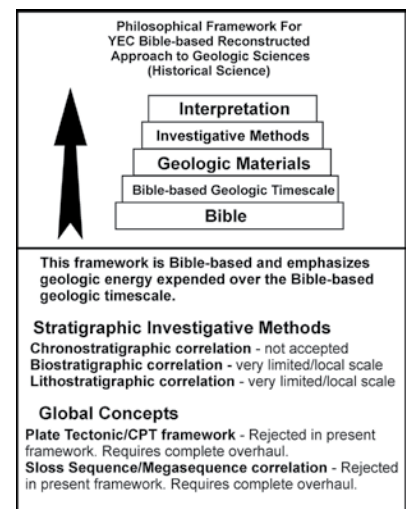
Does the reconstructionist approach require the rejection of all work conducted under naturalism or by remodellers? The answer is no. Young-earth creationists need to retain and use the physical data but remove all naturalistic interpretation.<sup>6,7</sup>

### Clarifying the two ‘types’ of science

Clarey claims there are empirical (i.e. observed and scientifically testable) data supporting seafloor spreading and CPT, including: 1) heat dissipation moving away from oceanic ridges, 2) elevational drop of the oceanic crust moving away from oceanic ridges, 3) matching magnetic reversal bands on both sides of a spreading ridge, 4) the presence of ocean ridges, 5) correlation of liquid petroleum (i.e. oil) from Brazil and West Africa, and 6) tomographic images interpreted as showing subducted oceanic crust in the mantle.<sup>8</sup>

Clarey claims that many of these datasets are independent of radiometric age-dating but do they *require* an interpretation consistent *only* with Plate Tectonic (PT) theory and CPT? A technical monograph written by several young-earth creationists has challenged some of these specific empirical evidences.<sup>9</sup> It should be reviewed.

We assert that *all* of Clarey’s ‘empirical data’ are historical. Historical events occurred in the past and are not subject to experience, repetition, or observation (table 1).<sup>10</sup> It is through Clarey’s ‘PT/CPT interpretation’ that he claims observation and experience but this is history and not science.



**Figure 2.** This is the worldview of reconstructionists. It completely abandons naturalism, the standard geologic timescale, and all of its inherent evolutionary assumptions. The biblical account of Earth history forms the biblical geologic timescale. It is used to define time and the geologic energy expectations of the rock record. The three investigative stratigraphic methods used in naturalism and modified by remodellers would have limited application in this worldview. God created the entire world in six days with all living creatures living in their respective antediluvian environments. The Flood changed it all. Flood-deposited fossils on one side of the earth would correlate to Flood fossils everywhere. The timing may vary in terms of early, middle, or possibly late Flood, but they would have been deposited during the Flood. This is the reality of reconstructionist Flood-dominated biostratigraphy. Post-Flood correlation of plant and animal fossils could prove fruitful in documenting post-Flood animal/plant/man dispersion/migration. However, that work remains to be conducted.

### Catastrophic plate tectonics—an old idea with plenty of problems

Clarey cites three recent articles: “Several recent articles have been published in the creation literature that have been critical of plate tectonics (PT), and specifically catastrophic plate tectonics (CPT).”<sup>2</sup>

Searching this subject in existing creationist technical literature<sup>5</sup> would have changed his perspective. Many articles and a book questioning ideas regarding PT/CPT began appearing

in the creationist technical literature in 1996.<sup>11</sup>

**The assignment of ‘miracles’ in developing a biblical geologic history**

Clarey mischaracterizes one of our questions regarding the application of miracles in following CPT:

“Their claims that the rapid horizontal movement of the plates across the earth requires a miracle, that accelerated nuclear decay requires another miracle, and that *global deposits require another miracle*, are no different than calling on miracles to initiate the Flood as they themselves have done.”<sup>12</sup>

We never invoked a miracle for the global deposition of Flood-derived sediments – that would be a physical manifestation of the Flood. We did question the remodellers’ claim of global chronostratigraphic correlation since its defense resides in naturalism. We remain perplexed why so many

miracles are deemed necessary by remodellers in their defense of CPT.

**The misapplication of figure 2**

Clarey surprised us with his uncited figure 2 and caption stating:

“There is a fairly well-defined general agreement of absolute-radiometric ages and stratigraphic ages.”<sup>13</sup>

We have previously discussed this figure with Dr Russ Humphreys.<sup>14,15</sup> The figure was originally used by John Woodmorappe<sup>16</sup> to *discredit* the use of radiometric age-dating by naturalists and to *discourage* its use by young-earth creationists. Its continued use by remodellers to support accelerated radiometric age-dating is inappropriate.

**Missed opportunity**

Clarey makes an important statement:

“Creation scientists cannot pick and choose the empirical data sets they want to use but should include all

appropriate data sets in any Flood explanation.”<sup>17</sup>

We ask that Clarey apply this to the three objectionable articles he cites but does not address at the beginning of his article.<sup>18–20</sup> These articles use data to raise objections to PT and CPT. We encourage Clarey to publish details of his objections for the three articles so that we can understand the ‘appropriate datasets’.

**Conclusion**

The schism<sup>3</sup> we identified in creation science is not about the acceptance or rejection of CPT or biostratigraphy, as Clarey’s article might suggest. It is developing between opposing worldviews.

We continue to ask remodellers who advocate CPT and other naturalistic concepts (e.g. accelerated nuclear age-dating, biostratigraphy, and the use of the time-compressed standard geologic timescale) to publish and defend their ideas as we have done with ours. We sincerely hope all of

**Table 1.** These are Clarey’s six empirical evidences supporting CPT. Each claim is examined based on observation/experience (science), processes that occurred in the past (history), and interpretation. All evidence for CPT is based in history and interpretation. This is a common problem for naturalists and remodellers working in the historical geological sciences; their ‘interpretation’ drives purported ‘science’, which is in fact history. Concepts like CPT and PT theory will eventually be replaced by newer concepts as new data overwhelms the old.<sup>21</sup> As such, CPT/PT as geologic concepts, are not essential to development of biblical geologic history.

Empirical Evidence in Support for Catastrophic Plate Tectonics	Empirical Science (Relying on experience or observation)	Historical (Process occurred in past and was not observed or experienced)	Interpretation
1. Heat dissipates moving away from oceanic ridges	Heat gradient measurable - origin and cause not observed	The creation of heat at the oceanic ridges occurred in the past - process unknown	CPT did it
2. Elevational drop of the oceanic crust moving away from oceanic ridges	Elevation measurable - origin and cause not observed	Raised elevation occurred in the past - process unknown	CPT did it
3. Matching magnetic reversal bands on both sides of a spreading ridge	Magnetic reversals can be measured - origin and cause not observed	The formation of the magnetic reversal bands occurred in past - process unknown	CPT did it
4. The presence of ocean ridges	Ocean ridges occur - origin and cause not observed	Ridges also occur on Iceland - but formed in past - process unknown	CPT did it
5. Correlation of liquid petroleum (i.e., oil) from Brazil and West Africa	Petroleum deposits occur - origin and cause not observed	Source rocks and petroleum deposits formed in past - process unknown	CPT did it
6. Tomographic images show hot/cold areas in the mantle	Hot/cold areas in mantle - origin and cause not observed	Hot/cold areas in mantle were formed in past - process unknown	CPT did it

us can work collectively to develop a technically sound and biblically defensible geologic history. To God be all the glory.

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