

# EDITORIAL

## SOME THINGS WE CAN KNOW

Those who study historical topics such as origins often face questions for which no easy answers are evident. Regardless of the worldview that controls interpretation of the evidence, some evidence is difficult to explain in the context of that worldview. This applies to creationists as well as evolutionists. However, since there are far more secular scientists, creationists may be tempted to retreat into silence. There is no need to do that. Evolutionary theory faces a host of challenges that creationists are unwilling to ignore, and there are some important foundational points of which we can be certain. Design and catastrophe are two compelling themes that are corroborated by both observation and revelation.

Design is conspicuous throughout nature. This does not mean that every natural feature exhibits perfection of form and function, but it is indisputable that we observe an abundance of features that are not explained by chance or the undirected action of natural law. The term “intelligent design” has come to be associated with such features, and an entire “ID” industry has emerged to identify and describe many examples of design. Among the most notable of these are the structure and fine-tuning of the universe, the fitness of the environment for life, the irreducible complexity of molecular machines, the specified complexity of interacting molecules such as enzyme-substrate pairings, the information content of DNA, etc. The evidence for design is compelling, as illustrated in this oft-quoted statement from atheist Richard Dawkins:

*Biology is the study of complicated things that give the appearance of having been designed for a purpose.<sup>1</sup>*

The late Francis Crick, another atheistic scientist, also acknowledged the appearance of design, and implied it can be resisted only by willful exertion:

*Biologists must constantly keep in mind that what they see was not designed, but rather evolved.*

It seems design in living organisms is so obvious that the materialistic worldview can only be maintained by refusing to accept the evidence of the senses.

Is the refusal to acknowledge design driven by its deleterious effect on scientific research? Apparently not. Crick continues:

*It might be thought, therefore, that evolutionary arguments would play a large part in guiding biological research, but this is far from the case. It is difficult enough to study what is happening now. To figure out exactly what happened in evolution is even more*

*difficult. Thus evolutionary achievements can be used as hints to suggest possible lines of research, but it is highly dangerous to trust them too much. It is all too easy to make mistaken inferences unless the process involved is already very well understood.<sup>2</sup>*

This sounds very much like design is rejected on the basis of personal taste rather than for any practical or logical reason.

For those who are open to consider the possibility of design in nature, the evidence is compelling – there is strong and abundant evidence of intelligent design in nature. This observation calls for an explanation. Several suggestions have been made, but none is more successful in explaining the evidence for design than the biblical story of creation and subsequent corruption (Genesis 1, 2, 6). Design is real, and we can state the fact with confidence. This is knowledge – there really is design in nature.

To be confident of design in nature does not require that every observed feature show design. Corruption and degeneration are also part of the biblical description of the natural world. Appealing to features that do not appear to be designed does not rule out design in nature. One compelling example of design is sufficient to establish the activity of a designer. Thus the creationist can identify examples of design as well as examples of non-design, while the materialist must be on constant guard lest some example of intelligent design be accepted. This is an impossible task, and it is only by the force of years of indoctrination that this materialism can be maintained.

Catastrophe is another theme that can be confidently identified in the natural world. Catastrophe can be seen especially clearly in the record of the rocks. Most of us have some acquaintance with “ordinary” catastrophes such as earthquakes, volcanoes, landslides, floods, and storms. However, the geologic column shows evidence of catastrophic conditions unparalleled in today’s world.

Craters left by impacts of asteroids or comets testify to catastrophic events that are larger by several orders of magnitude than anything observed in recorded history. At least 190 impact craters are known<sup>3</sup> on Earth’s surface, and many more may be buried beneath sediments or lost by subduction into Earth’s mantle. Craters occur on every continent, and throughout most of the geologic column. At least thirteen of these are 50 km or more in diameter. Such impact events would wipe out all terrestrial vertebrates over a large region, cause large-scale geologic effects such as earthquakes and sediment transport, and produce widespread destruction in the marine environment. There can be no doubt that the earth has a history of catastrophe. But impact craters are only one type of evidence for catastrophe.

Large igneous provinces, or “flood basalts,” are another type of catastrophic event recorded in the rocks. These are large outflows of basaltic or granitic magma, believed accompanied by great quantities of sulfur

dioxide, carbon dioxide, and other environmentally relevant gases. The Columbia River Basalts (CRB) are probably the example most familiar to North Americans.<sup>4</sup> Covering an area of about 210,000 km<sup>2</sup>, the CRB was relatively small compared to some flood basalts. Two of the most famous flood basalts are the Siberian Traps and the Deccan Traps. The Siberian Traps span the boundary between Permian and Triassic sediments, marking the transition from Paleozoic to Mesozoic rocks. This is the largest terrestrial lava flow,<sup>5</sup> covering an area of about 7 million km<sup>2</sup> and having a volume estimated at 4 million km<sup>3</sup>. The Deccan traps occur at the boundary between Mesozoic and Cenozoic rocks. They cover an estimated 1.8 million km<sup>2</sup>, with a volume of about 1 million km<sup>3</sup>. Even larger basaltic flows are found beneath the ocean. The largest of these is the Ontong-Java Plateau, which covers about 4.27 million km<sup>2</sup> with a volume of some 58 million km<sup>3</sup>. Such massive outflowings of lava are another example of catastrophic activity beyond anything in human memory.

A third type of evidence for catastrophic activity is the pattern of abrupt change in the fossil sequence, generally referred to as a “mass extinction.” Recognition of a “mass extinction” is based upon an abrupt change of fossil species with at least 50% of the species disappearing across a stratigraphic boundary. The various fossil layers are distinguished by their fossil content, and the boundaries in the geologic column are all based upon more-or-less abrupt changes in fossil content. For example, there is a major change in fossil content between the Permian and Triassic layers. This abrupt change is the basis for dividing the Paleozoic layers from Mesozoic. It has been estimated that only about 5-10% of the fossil species in Upper Permian sediments are found in Triassic deposits. The other 90-95% disappear from the record at the “Permo-Triassic boundary.”<sup>6</sup> Two other important abrupt fossil changes occur at the Ordovician-Silurian boundary and at the “Cretaceous-Paleogene boundary.” The latter change marks the distinction between Mesozoic and Cenozoic layers. These patterns suggest catastrophic activity, and call for an explanation. Interestingly, there seems to be some correlation between these major abrupt changes in fossil content and extraterrestrial impacts and/or flood basalts. It is tempting to speculate that catastrophic events such as impacts and volcanic outflows resulted in destruction of life in affected regions, and caused oceanic currents and sediment transport that sequentially buried organisms from different habitats or geographic regions. This is a question that appears to warrant further exploration.

These three lines of evidence unequivocally point to catastrophic conditions of regional or global scale. Is there some pattern in this catastrophic history that would be of interest to creationists? Consider the sequence of fossils. The lower Paleozoic is from marine sources. Middle Paleozoic layers are nearly all marine, and include many heavy-bodied fishes. Upper

Paleozoic fossils also include many marine types, but also some terrestrial reptiles and coal plants, which probably represent coastal habitats. Mesozoic layers include marine fossils, but show an increasing diversity of terrestrial vertebrates and plants. Finally, Cenozoic layers preserved on the continents are largely terrestrial except for marine fossils around the continental margins. There is a conspicuous ecological pattern of increasing terrestriality in the fossil sequence, and although the details are difficult to interpret, the general pattern is reminiscent of what might be expected from a global catastrophic flood in which marine organisms were buried first, followed by increasingly terrestrial groups of organisms.

Science provides strong evidence of design and catastrophe in our world. We can confidently know that these are real patterns in nature. Scripture provides explanations for why we see such massive evidence of design and catastrophe. From Scripture we learn that there is a Designer who created the world and its living organisms. Science cannot demonstrate creation, but Scripture illuminates what we see in science, and informs us about the meaning of design. A similar situation applies to catastrophe. Science can show evidence of catastrophe, but cannot determine its meaning. Scripture illuminates the meaning of the catastrophic nature of the geologic column, pointing us to the story of the flood, and explaining why we have such a rich fossil record to examine. Not surprisingly, there are many questions about the details for which we lack suitable answers, and there are many things we do not know. But we can know some things. We can know that living organisms are designed by an intelligent Creator, and we can know that this world has experienced global catastrophe on a scale unknown to our experience. From this foundation flows the possibility of advancing our understanding through scientific research from a creationist perspective.

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## ENDNOTES

1. Dawkins R. 1987. *The Blind Watchmaker: Why the evidence of evolution reveals a universe without design*. NY: WW Norton, p 1.
2. Crick F. 1990. *What Mad Pursuit*. NY: Basic Books, p 138.
3. Earth Impact Database, <http://www.passc.net/EarthImpactDatabase/Diametersort.html>, accessed 17 July 2018.
4. SGS Volcano Hazards Program, [https://volcanoes.usgs.gov/observatories/cvo/cvo\\_columbia\\_river\\_basalt.html](https://volcanoes.usgs.gov/observatories/cvo/cvo_columbia_river_basalt.html), accessed July 7, 2018.
5. This and succeeding size estimates are based on figures taken largely from: Ernst RE. 2014. *Large Igneous Provinces*. NY: Cambridge University Press, and available at [www.largeigneousprovinces.org](http://www.largeigneousprovinces.org)
6. Permian extinction. <https://www.britannica.com/science/Permian-extinction>, accessed July 7, 2018.