

Book Reviews

My major critiques do not so much concern the details of Denton's book, although indeed, those details are worth puzzling over. Rather, in many ways, elements of Denton's approach and arguments contain echoes of other authors residing within the scientific mainstream who have described the importance of nonadaptationist and nongradualist evolutionary processes, such as Eldredge and Gould's "punctuated equilibrium" and Gould and Lewentin's "spandrels" papers. Rather than constituting a "crisis" for a Darwinian model of evolution, these additional mechanisms highlight that absolutism in any extreme (such as for an absolutist Darwinian framework) is unlikely to be convincing. In a 1997 essay, for example, Gould suggested a middle ground, in which we can recognize that a variety of mechanisms—such as natural selection, punctuated equilibrium, developmental constraints, chance, neutralism, genetic drift, and natural catastrophes—might be operating simultaneously and to varying extents to drive evolution (S. J. Gould, "Darwinian Fundamentalism," *The New York Review of Books*; June 12, 1997). And indeed, as Gould points out by quoting Darwin, even Darwin himself objected to an ultra-Darwinian vision:

I placed in a most conspicuous position—namely, at the close of the Introduction—the following words: "I am convinced that natural selection has been the main but not the exclusive means of modification." This has been of no avail. Great is the power of steady misrepresentation.

Thus, Denton seems to protest against a Darwinian absolutism not even held by Darwin. Given the multiplicity of evolutionary mechanisms probably operating in tandem with a Darwinian mechanism (a thoroughly mainstream view), it seems an overstatement to name the evolving scientific picture a "crisis." Moreover, it is not clear why the book is entitled *Evolution: Still a Theory in Crisis*. Denton's book is not a critique of evolution per se (descent with modification), but rather what he perceives as a widespread Darwinian absolutism (p. 111). Oddly, since he laments that this exact linguistic fuzziness appeared in his prior book, *Evolution: A Theory in Crisis* (1985), it is unclear why it persists in the current book.

Denton's book is not an easy read. I found his writing to be dense and quite technical at points. However, summaries at the end of each chapter help frame the major arguments and the book's central thesis. Still, reading it would be a substantial undertaking for the lay reader. Despite the above points and the sometimes overblown rhetoric about the "Darwin propaganda machine" (p. 88) and the "corpse of Darwinian evolution" (p. 225), Denton's book made me think hard and delve more deeply into some of the nuances of evolutionary mechanisms that might have generated such a diversity of biological structure and function. It is likely that laws of biological form, random chance, genetic

drift, punctuated equilibrium, and Darwinian adaptation may all have roles to play.

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SCIENCE AND RELIGION

DICTIONARY OF CHRISTIANITY AND SCIENCE: The Definitive Reference for the Intersection of Christian Faith and Contemporary Science by Paul Copan, Tremper Longman III, Christopher L. Reese, and Michael G. Strauss, eds. Grand Rapids, MI: Zondervan, 2017. 691 pages. Hardcover; \$59.99. ISBN: 9780310496052.

The *Dictionary of Christianity and Science* brings together Christian scholars to help explain the significant theories, issues, and individuals essential to the discussion of science and the Christian faith. Like other scholarly dictionaries or encyclopedias, it provides brief entries that succinctly explain each concept or issue. These entries represent a wide range of topics, from the philosophical to the scientific to the biblical and theological. The purpose is to provide a resource to help readers engage the issues related to science and faith.

A strength of this volume is in the way it provides clear, concise explanations of difficult and often complex issues. Through the use of cross references and recommended reading, the authors help readers understand the main ideas being discussed. In this way, the volume is easy to use and very readable.

Another strength is the way controversial issues are presented. For example, there are two entries that deal with climate change—one that interprets the scientific data to suggest that humans are having a significant impact on changing climate, and the second arguing that humans are not. Both address the issue biblically and scientifically while coming to different conclusions. A second example is the discussion of the days in Genesis. There are two entries that present the most basic views of Genesis 1: the days as literal 24-hour periods of time, and the framework approach. Both make their case well, demonstrating the advantages and disadvantages of each perspective. A third entry focuses on a basic explanation of a variety of ways Christians have interpreted the days in Genesis 1, providing a brief overview of each approach.

A weakness of this volume is what is missing, which betrays a more conservative evangelical bias. The entry on the various interpretations of Genesis 1, for example, does not include a mythological reading that grounds the interpretation of the text in the ancient cosmology of the Israelites and in the creation stories of the ancient world. Another example is the entry on death, which does not discuss the possibility of seeing physical death

as a part of God's good creation. The author differentiates between physical and spiritual death but makes the theological assumption that physical death is always a result of sin. There are Christians who challenge this perspective, and recognizing this—even if the author disagrees—would seem to fit the purpose of this volume. Finally, there are important figures missing that would fill out the spectrum of theological perspectives. For example, there is no entry for Pierre Teilhard de Chardin, whose work has influenced scholars such as Ilia Delio to creatively explore the connections between incarnation and evolution. There is also no entry for Elizabeth Johnson, who brings a feminist hermeneutic to bear on ecological issues in her recent work *Ask the Beasts: Darwin and the Love of God*. While one might respond by pointing out the impossibility of including everything in one volume, which I recognize, there seems to be a glaring omission of Christian scholars who are pursuing what might be considered a more progressive approach to questions related to science and faith. Regardless of the target audience, any volume that uses the word “definitive” in the subtitle needs to include individuals and ideas that represent the broad spectrum of perspectives.

The authors in this volume represent a variety of conservative theological traditions and perspectives that correlate with the variety of beliefs that evangelical Christians tend to hold. Laudably, this volume represents a constructive example of dialogue that allows the reader to better understand why Christians hold particular beliefs, which makes it an important contribution to the discussion.

The *Dictionary of Christianity and Science* is an excellent resource for students, pastors, teachers, and anyone interested in learning more about issues related to Christian faith and science.

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RIGHTING AMERICA AT THE CREATION MUSEUM
by Susan L. Trollinger and William Vance Trollinger Jr.
Baltimore, MD: Johns Hopkins University Press, 2016.
327 pages. Hardcover; \$26.95. ISBN: 9781421419510.

Answers in Genesis (AiG) opened its much-anticipated, 27-million-dollar Creation Museum in rural northern Kentucky at the end of May 2007, drawing more than half a million people in the first sixteen months and more than three million in the first ten years. Those are impressive numbers. By comparison, the nearby Cincinnati Museum Center, located in the heart of a major Midwestern city, covering a much larger range of subjects in three separate museums, boasting an OMNIMAX theater, and targeting a much broader demographic than just conservative Protestants, had about 1.45 million visitors in 2015. With 20% as much traffic as its much larger secular neighbor, AiG's

museum has proved to be a commercial success. Like the YEC ideas that it embodies, the Creation Museum is here to stay.

One reason for this is the high production values evident throughout. I saw this for myself, when I visited the Museum scarcely more than three months after it opened. Terry Mortenson of AiG kindly gave me a tour of the operation behind the scenes afterwards, but mostly I walked through the exhibits unaccompanied, attended a well-organized presentation by astronomer Jason Lisle in the technically impressive planetarium, and formed my own conclusions about the methods and the message of the Creation Museum. What struck me most is the way in which visitors are shown the YEC view and evolution as separate but equal sets of assumptions, with the scientific evidence impotent to determine which approach actually provides a better explanation. That is best seen in the Dinosaur Dig Site, a big sand box in which two paleontologists, one secular and one a creationist, uncover the same bones with the same techniques but draw very different conclusions about the implications.

As with many other cultural phenomena of comparable impact, the Creation Museum has attracted significant attention from scholars in a variety of disciplines, but to the best of my knowledge this is the first full-length scholarly book about it. The authors are devout Roman Catholic professors from the University of Dayton, rhetorician Susan L. Trollinger and historian William (Bill) Vance Trollinger Jr. A former colleague of mine at Messiah College, Bill Trollinger has written extensively on fundamentalism, including a book about William Bell Riley, a Baptist minister from the Twin Cities who founded the World Christian Fundamentals Association, an organization that combatted evolution after the Great War. (Riley was the person who persuaded William Jennings Bryan to assist the prosecution at the Scopes trial.) Susan Trollinger is best known for her book, *Selling the Amish*. Between them, the Trollingers bring expertise in anti-evolutionism and visual rhetoric to bear on the Creation Museum. *Righting America at the Creation Museum* combines analysis of the museum as a visual argument with analysis of the ideas on display, giving readers a broad and sometimes deep understanding of creationism as a phenomenon.

I entirely agree with their central thesis:

the museum exists and thrives ... because it represents and speaks to the religious and political commitments of a large swath of the American population, [seeking to] arm millions of American Christians as uncompromising and fearless warriors for what it understands to be the ongoing culture war in America. (p. 2)

The key words are “uncompromising” and “culture war,” core aspects of young-earth creationism that are well documented in the book.