## LITERATURE REVIEWS

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## AN UNFINISHED CONVERSATION

**Before Darwin: Reconciling God and Nature.** Keith Thomson. 2005. New Haven, CT: Yale University Press. 314 p. Cloth, \$27.00.

Reviewed by Gary Land, Ph.D.

Department of History and Political Science
Andrews University, Berrien Springs, Michigan

Since publication of Michael Denton's *Evolution: A Theory in Crisis* (1986), the Intelligent Design (ID) movement has inspired many publications, both pro and con. The ID debate prompted Keith Thomson, professor emeritus of natural history at Oxford University and author, among other works, of *Morphogenesis and Evolution* and *H.M.S. Beagle*, to take a new look at the seventeenth- to nineteenth-century development of this argument. Thomson seeks to understand why the argument from design came apart some one hundred and fifty years ago and the implications this failure has for its more recent iteration.

The author sets the stage by noting connections between William Paley, the most famous formulator of the modern argument from design, and Charles Darwin, whose theory of natural selection replaced Paley's teleological interpretation. Darwin not only lived in the same rooms at Christ College in Cambridge as had Paley seventy years previously; he also studied the latter's *Natural Theology*, later describing it as "the most use to me in the education of my mind" (p 6).

Paley wrote his works in response to the increasingly materialistic and mechanistic science developed in the eighteenth century which was already suggesting that life emerged through purely natural processes. As Thomson humorously writes, "Paley read Erasmus Darwin, recoiled, and

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reached for his pen" (p 38). Furthermore, James Hutton's *Theory of the Earth* had put forward evidence that the planet itself was extremely old, its geological features produced by a balance of physical forces that seemed incompatible with the Genesis account of creation.

Paley's minimalist argument, which addressed only God's existence, arose from the increasingly tortured attempts of earlier natural theologians to accommodate new scientific thinking. John Ray, described as the "founding father" of modern natural theology, argued in the 1660s that the complexity of nature revealed its supernatural origin. Although Ray's concept of species suggested that nature was static and unchanging, the discovery of fossils, followed by identification of Earth's underlying structure, and finally, a growing understanding of the relationship between particular fossils and certain rocks presented empirical challenges to orthodox religious understanding. In response, such writers as Steno, Robert Plot, Thomas Burnet, John Woodward, William Whiston and others developed "sacred theories" that sought to reconcile the evidence for such phenomena as mountain building with traditional ideas of special creation and one or more deluges. Thomson argues that the absence of a theory of plate tectonics — described as "a realistic and testable mechanism" (p 190) — allowed these sacred theories to flourish.

Meanwhile, through the work of Erasmus Darwin, Comte de Buffon, and Jean Baptiste de Lamarck, evolutionary theories emerged which postulated that nature held within itself a normative "causal generative process" that produced variations "shaped by chance or circumstance" (p 215). Although inadequate genetic understanding limited nineteenth-century knowledge of biological change, Charles Darwin's theory of natural selection, by concentrating on "common-sense phenomena," provided a causal mechanism that seemed to explain change and variation in nature.

Turning back to Paley, Thomson argues that his natural theology also supported the preservation of an oligarchical society, a view reinforced by his reading of Thomas Malthus's theory of population growth. This connection with Malthus produced one of history's interesting ironies. "In adopting Malthus's ideas so strongly and so early," Thomson writes, "Paley helped promulgate them and ultimately contributed to the promotion of atheism in the form of the evolutionary theory of Darwin, who acknowledged that both Paley and Malthus had had a profound influence on his thinking" (p 259).

Rather than writing a straightforward chronological account of the rise and fall of natural theology, Thomson has constructed his history more in the fashion of a dialogue between Paley and his fellow natural

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theologians and their scientific challengers. Entering the conversation himself, the author suggests the controversy over evolution is part of a long conflict between rational explanation and acceptance of mystery. Although stating that "the fact of evolution as a process of change over time is constantly tested, and has never failed" (p 203), he also regards religious explanations sympathetically, even seeking to rescue them from their strongest supporters. "The trouble with using terms like 'intelligent', 'design', and 'good' as anything more than metaphors is that it becomes easy to think that they can be applied literally in a human sense," he writes. "While to portray God as too mysterious is always to risk making him too remote, making him too accessible and too much like us risks trivializing him" (p 235).

Thomson suggests science and religion are complementary enterprises that thus far "have not been able to agree upon the reformulation of a set of questions that they can attack jointly." The book closes with a description of the unfinished Oxford University Museum, financed by the Oxford University Press's Bible publishing account and site of the famous Wilberforce-Huxley debate over Darwinism, which the author regards as a "metaphor about the work of science and the reconciliation of science with religion" (p 279).

Before Darwin reflects the author's deep reading in the primary sources, including both the historically significant works by such authors as Burnet, Paley, and Darwin as well as more recent writers ranging from Owen Gingerich and Davis Young to Ronald L. Numbers. Thomson also reveals a close acquaintance with Scripture, quoting it occasionally but effectively. Yet he wears this scholarship lightly, for the beautiful and engaging prose and the book's structure encourage the reader to become a participant in the dialogue rather than merely an observer.

Thomson's sympathetic but critical account of the conflicted development of natural theology, including the intellectual connections between Paley and Darwin, is convincing. Anyone seeking to understand either the historical development or recent reformulation of the argument from design will find this volume indispensable. Although the author writes from an evolutionary perspective, making no effort to establish its validity, creationist and/or intelligent design proponents will nonetheless find his historical analysis helpful. Furthermore, *Before Darwin*'s suggestion that science and religion are engaged in an unfinished conversation offers a subdued but hopeful outlook for religious, particularly Christian, believers who take science seriously.

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