LITERATURE REVIEWS

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INTELLIGENT DESIGN COMES OF AGE

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MERE CREATION: SCIENCE, FAITH & INTELLIGENT DESIGN. William A Dembski (ed.) 1998. Downer's Grove, IL: InterVarsity Press. 475 p. Paper, \$24.99.

A landmark conference of intelligent design advocates, and some critics, met at Biola College near Los Angeles, California in November, 1996. The Conference was titled "Mere Creation" and this book is one of its results. Contributors to the book include the founders of the "Intelligent Design Movement": William Dembski, Steven Meyer, Jonathan Wells, Paul Nelson, Michael Behe, John Mark Reynolds, and Phillip Johnson. They are joined by an impressive list of scholars for whom "intelligent design" is a key to understanding nature.

The book is divided into 18 chapters, arranged into five sections. Topics range from J.P. Moreland's "The Explanatory Relevance of Libertarian Agency as a Model of Theistic Design"; to "Intelligent Design Theory as a Tool for Analyzing Biochemical Systems" by Michael Behe; to "Big Bang Model Refined by Fire" by Hugh Ross. To keep this review to a readable length, I will select one chapter from each section. This should give an idea of the range of topics, and allow me to point out some of the ideas I found particularly interesting.

Jonathan Wells addresses the issue of similarities in development in his chapter "Unseating Naturalism: Recent Insights from Developmental Biology." All animals appear to have similar genes, known as homeotic genes, controlling major aspects of embryological development. The similarities among these genes from different types of organisms has been used as an argument for common ancestry. For example, the Pax-6 gene is important in development of the compound eye of insects and also the camera-like eye of vertebrates. However, it is widely believed that the evolutionary common ancestor of insects and vertebrates did not have an eye. How then did the Pax-6 gene become linked to development of eyes with completely different structures in vertebrates and insects? If evolutionary theory is correct, that insects and vertebrates share a common ancestor lacking eyes, then at least the function of Pax-6, and perhaps the gene itself, must have arisen independently in the two groups. And how does one account for the occurrence of a gene before the existence of its major function? Is this not more easily explained as the result of intelligent design? Other topics addressed by Wells include the significant differences in development in different vertebrate classes, and the importance of biomolecules other than DNA in development. Paul Nelson's chapter, "Applying Design within Biology," presents additional arguments concerning the evidence for design in embryological development.

William Dembski's chapter, "Redesigning Science," discusses some of the changes that might come should Intelligent Design be accepted. But the chief contribution of the chapter is his "explanatory filter" for identifying design. Dembski proposes an algorithm of three steps. The first step is to ask whether a phenomenon can be explained as the result of natural law. If so, there is no need to invoke design. If not, the second step is to ask whether the phenomenon is plausibly explained by chance. If so, there is no need to invoke design, although design cannot be ruled out, because it can mimic chance. If chance is implausible, the remaining explanation is design. While it may not be possible to mathematically prove design, yet one can reasonably invoke design as the best inference to the evidence. The explanatory filter provides an objective method to examine the problem of identifying design. The sticky point, however, is the plausibility criterion. People differ in their judgment of what is plausible. Furthermore, philosophical preferences may strongly disincline one to accept an interpretation at variance with one's chosen paradigm. Nevertheless, I found the explanatory filter to be a useful tool to identify the degree of improbability one must accept in order to avoid the conclusion of design.

The relationships among australopithecines and humans are discussed by Sigrid Hartwig-Scherer in her chapter "Apes or Ancestors?" Scherer identifies several unanswered questions in hominoid evolution, and proposes that hominoids occur in a series of separate types. These include the cercopithecine monkeys, with differences among the genera possibly due to minor genetic modifications of developmental growth parameters. A second type is the gibbon apes, and orangs make a third type. Humans are a fourth type, with a single living species. The African apes comprise the fifth type. When fossils are added, *Homo erectus* and Neanderthals are added to the human type. "*Homo habilis*" is regarded as an unreliable taxon, probably including material from more than one species. Certain fossil apes, such as *Sivapithecus*, can be added to the orang type. Australopithecines are a different type of ape, not related to any member of the living fauna. The African ape type (gorillas and chimps) is not known from the fossil record.

Some critics of intelligent design have accused the movement of resorting to "God-of-the-gaps" arguments. John Mark Reynolds responds to this charge in his chapter "God of the Gaps." As knowledge of nature increased, phenomena previously attributed to God's direct action became explained through "natural" causes. As this trend progressed, God's acknowledged role in the cosmos nearly disappeared. Religious thinkers responded to this in four ways, according to Reynolds. Some retreated from making any historical claims, leaving only moral and ethical concerns as the domain of religion. Others attempted to harmonize science and Scripture, pointing out that scientific claims were inadequate, and supernatural activity should be acknowledged. A third reaction was to seek to interpret the Scripture in cultural terms, not denying some factual basis for some of its statements, but not insisting that all statements be factual. A fourth reaction is the intelligent design response, which insists that failure of scientists to recognize God's hand in nature is due to philosophical biases rather than empirical data. Intelligent design functions in historical science better than in experimental science. The chapter further describes and analyzes examples of god-of-the-gap arguments and criticisms made of them.

Robert Kaita's chapter is entitled "Design in Physics and Biology: Cosmological Principle and Cosmic Imperative?" Kaita points out that inference to design was not problematic before the seventeenth century, and need not be a problem today. Kepler, for example, was a pious Christian and a great scientist. Today, two principles are used in attempts to expunge the idea of design in nature. One principle is the "cosmic imperative" championed by Christian de Duve. This is, in essence, the belief that life in our universe is somehow inevitable. It is inevitable because that is the only explanation for an event that appears too highly improbable to be attributed to chance. Kaita points out that this principle is actually an *a priori* philosophical presupposition, not empirically based. The second "principle" is the cosmic anthropic principle, promoted by physicists such as Stephen Hawking. This "principle" is that we see the universe as it is because if it were any other way, we would not exist to see it. Clearly, this "principle" does not explain either the existence of the universe or the existence of the human observer — it merely points out that the universe appears remarkably suitable for human existence. Design theorists would agree on that point, but come to a completely different conclusion regarding the reason for it.

This is a sampler of the material in this book. Although it may seem heavy in places, those with an interest in the question of design should find the book to be an intellectual treat.