Book Review-Explore Evolution:
The Arguments For and Against Neo-Darwinism

reviewed by Wes Struble

Explore Evolution is a well-written book that is designed for use as a companion to high school biology textbooks. Most standard biology textbooks only provide evidence that lends support to neo-Darwinian theory. *Explore Evolution* takes a two-fold approach. For each topic (homology, fossils succession, embryology, etc.), the authors first present a summary of the standard supporting evidence for neo-Darwinian theory, then they present alternative interpretations to the neo-Darwinian view. What makes this book unique is the inquiry-based approach. In the majority of texts (especially high school biology) the authors' views come across as established fact. Critical thought is encouraged as long as it falls within the authors' neo-Darwinian interpretational paradigm. In *Explore Evolution* the students are encouraged to think critically about each of the topics presented. The book is intentionally noncommittal as to which interpretation is correct, and it is organized in such a way as to promote critical thought and interaction. Successful classical educational methods make liberal use of inquiry and debate and *Explore Evolution* fits the model well by promoting both. Take, for instance, the authors' treatment of natural selection. In the *Case For* section they begin by explaining natural selection as a theoretical mechanism that Darwin proposed to support his theory of common descent. They describe the reasoning behind Darwin's development of natural selection. This is followed by a discussion of the conditions required for natural selection. The authors then compare natural selection and artificial selection (selective breeding of animals by humans). Next the concept of "microevolution" is introduced and how the extrapolation of all these concepts would eventually lead (given enough time) to major morphological changes that would produce new types of organisms. This section ends with two classic cases sited as evidence of Darwinian evolution: the Galapagos finches and the English peppered moths. In the *Reply* section the authors provide alternative interpretations for the comparison of artificial selection and natural selection, and the potential problems of extrapolation. They offer a more complete picture of the Galapagos finches and the peppered moths by supplying evidence counter to the claims of neo-Darwinian natural selection. The authors end the section with a discussion of one of the major difficulties of neo-Darwinian theory: the problem of the information encoded in DNA. There are two parts to DNA. There are visible molecules that make up the physical structure of the molecule. Then there is the message or information coded into the molecule. Proposing a theory that explains the origin of DNA molecules without an explanation of the origin of the information is like attempting to account for the sheet music of a Mozart concerto by describing the chemistry and physics of paper and ink. Throughout the text, critical thought and evaluation are theme.

This book could be a very effective tool to help accomplish the goals of classical Christian education in the science classroom whether used to enhance a teacher's understanding and application of classical methods as they apply to scientific topics or as a supplementary text for students. One caution: the authors are working from an old earth paradigm. They appear to accept the standard four to five billion years of earth history as summarized in the geologic timeline. Whether this is done by conviction or for the sake of convenience (it would be difficult to get this book into public schools with a young earth chronology) is not revealed.

Explore Evolution:
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by Stephen C. Meyer, Scott Minnich, Jonathan Moneymaker, Paul A. Nelson, and Ralph Seelke
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