

Book Reviews

fossils in successive stratal horizons argued that Earth catastrophes (“revolutions”) resulted in major extinction events followed by repopulations of Earth’s surface by new life forms. These biotic replacements, in fact, could well be a potential effect of the *Bildungstrieb*. However, Blumenbach did not feel free to postulate continuities in the history of life. Rather, following a major catastrophe, the *Bildungstrieb* would be forced into new directions, and new life forms (in many cases, not totally unlike prior forms) would naturally emerge.

The latter portion of Zammito’s volume includes a chapter on Carl Friedrich Kielmeyer (1765–1844) and his influence on the course of nineteenth-century-biological science. Zammito contends that Kielmeyer, although a student of Blumenbach’s, did not derive his biophilosophy from the Göttingen professor. Kielmeyer published little, but he influenced a broad cadre of his students at Stuttgart, as well as others, through unpublished and published class notes; he himself furnished annotated versions of his class notes to his friend Cuvier and to Goethe. His published 1793 address, “On the interrelations of the organic forces in the series of different organizations, the laws and consequences of these” set forth a rationale for organizational and research principles for what Treviranus would later term “biology” (1802). Kielmeyer described organic systems as supervening on organic chemistry but as entirely natural, thus requiring a new layer of laws and an organizational schema which, in turn, required a historical-hierarchical structure to the realm of living creatures. Zammito documents the energizing effect of this proposal for the biology of the first half of the nineteenth century.

A running dialogue between these early biologists and contemporary philosophers, including Diderot, Herder, Kant, Goethe, and Schelling, helped variously to clarify or complicate epistemological issues or the warrant for research. Schelling’s proposal, which he termed “*Naturphilosophie*,” affirmed that life’s organization could be investigated via natural principles and appeared to resolve some of the epistemological issues posed by Kant. It would prove inspirational to Ignaz Döllinger, and through Döllinger, to the anatomists von Baer, von Pander, and Oken. However, Schelling’s conjunction of *Naturphilosophie* with Spinozism led to disenchantment with *Naturphilosophie* among German scientists of the next generation.

Zammito’s book is thorough and thoughtful. He is fluent in the primary literature and effortlessly dialogues with both past and contemporary interpreters. In places, he graciously but unapologetically disagrees with some of his colleagues. It may well be the case, as Stephen Gaukroger claims in his jacket recommendation, that “*The Gestation of German Biology* is his

crowning achievement.” It is of great use as a reference and highly recommended.

Reviewed by Ralph Stearley, Professor of Geology Emeritus, Calvin University, Grand Rapids, MI 49546.



MEDICINE AND HEALTH

FEARFULLY AND WONDERFULLY: The Marvel of Bearing God’s Image by Paul Brand and Philip Yancey. Downers Grove, IL: InterVarsity Press, 2019. 272 pages. Hardcover; \$14.59. ISBN: 9780830845705.

I first read Paul Brand and Philip Yancey’s books, *Fearfully and Wonderfully Made* and *In His Image*, in the 1980s. I loved them so much that, when I began teaching anatomy courses as a faculty member in the mid-1990s, I made *Fearfully and Wonderfully Made* required reading for students in my human anatomy courses. Now, after more than two decades of reading student journal responses to this thoughtful and deeply meaningful book, I can say with confidence that it has been an excellent tool in helping students integrate anatomy and their Christian faith. Therefore, when *Fearfully and Wonderfully: The Marvel of Bearing God’s Image* was released, I couldn’t wait to read it. *Fearfully and Wonderfully* combines the original two books into one volume. Brand died in 2003, so to write this revised and updated combined edition, Yancey went back to his original interview notes and Brand’s writings, and also incorporated updated information.

The familiar verses of Romans 12:4–5 introduce us to the image of the Body of Christ as an analogy for the church. In Romans, Paul teaches us that every part of that Body plays its own important role. In *Fearfully and Wonderfully*, Brand, through the pen of Yancey, expands the scriptural image of the church as the Body of Christ with unforgettable stories of Brand’s work with lepers in India and in the United States. For example, he asks the reader to consider the body’s skeleton. Our skeleton provides more freedom than restriction compared to organisms that have an exoskeleton, such as a crayfish. In an analogous way, God’s laws are intended to free us rather than restrict us. I was particularly convicted when he pointed out that, like an exoskeleton, rigid, rule-focused faith does not accommodate the kind of growth and adaptation that a grace-focused internal skeleton does. He reminds us of the importance of touch and the miracle of the compliancy of skin, urging us to consider the value of compliancy when we (Christians) work and live among others who may not share our beliefs and values. And he asks us to think more deeply about what the Lord’s Supper means if we more fully understand the structure and function of blood.

I found Brand's exploration of the role of pain to be the most poignant. As a physician who has treated thousands of leprosy patients, Brand knows, *really* knows, the function of pain and how wrong things go when we lose the ability to feel pain. Pain warns us that a body part needs special attention. We avoid constant re-injury because of pain, so that a body part can heal. Similarly, Brand reminds us that it is important to pay attention to the parts of the Body of Christ that are suffering. "I can read the health of a physical body by how well it listens to pain ... Analogously, the spiritual Body's health depends on whether the strong parts attend to the weak" (p. 187). How the church needs this lesson today!

In the early chapters of this book, Brand describes his unexpected call to medicine. He was raised in India by his missionary parents and planned a career in construction with intentions of using it back in India. He had seen firsthand how expertise in construction could improve the lives of the people of India. He tells the story of how he was drawn reluctantly to medicine when he witnessed a blood transfusion bring a patient back from near death. He altered his path and trained as an orthopedic surgeon, specializing in the hand. When Brand describes how he came to work with patients who suffer from leprosy, he shares his surprise with the reader when he realized that both his construction and his medical training were critical in caring for those who could no longer feel their limbs. Brand treated the disease (medicine) but also designed shoes (construction/engineering) that avoided the development of pressure sores that form when a leprosy patient fails to shift their gait the way those of us with feeling in our feet do, without even thinking about it.

I hope that my students, worried about choosing a major and a career while trying to discern God's will for their lives, will find comfort and wisdom in Brand's winding path to uncovering God's will when they read this book. I'm using the book's discussion questions as prompts for student journals. The responses so far have been uniformly positive. Students who began reading with dread—another book a professor wants them to read—found themselves deeply engaged. All readers, not only anatomy students, will find a message for them in this book.

The discussion questions make this book easily accessible for small groups or adult Sunday school classes and for any member of the Body of Christ who needs a reminder of what that membership really entails. All will benefit from *Fearfully and Wonderfully*.

Reviewed by Sara Sybesma Tolsma, Professor of Biology, Department of Biology, Northwestern College, Orange City, IA 51041.

Φ PHILOSOPHY

SINCE THE BEGINNING: Interpreting Genesis 1 and 2 through the Ages by Kyle R. Greenwood, ed. Grand Rapids, MI: Baker Academic, 2018. 308 pages. Paperback; \$27.00. ISBN: 9780801030697.

Anyone familiar with the exegetical history of the first two chapters of the Bible knows that dealing with this topic in a single book is an impossible task. There have been more attempts to understand Genesis 1 and 2 than any other biblical chapters, and there has never been a wider range of differing and conflicting interpretations. Yet despite this situation, Old Testament scholar Kyle Greenwood has assembled a fine team of academic specialists from various disciplines, and they offer in this book a remarkably informative and insightful set of chapters/papers introducing readers to this challenging topic.

Most of the chapters follow a four-part rubric: (1) the interpretation of the days of creation in Genesis 1, (2) the cosmology or structure of the world, (3) the creation of humans and their status, and (4) the Garden of Eden (p. xxi). In the preface, Greenwood makes an important qualification regarding the use of the term "literal" in biblical hermeneutics. For some, it means "a plain-sense reading of the text." But for others, literal "refers to the text's intended usage given the word's context and the genre of the literature in which it appears" (p. xxiii). In this way, Genesis 1 and 2 can be read Christologically, eschatologically, allegorically, typologically, metaphysically, philosophically, midrashically, or scientifically.

In the opening chapter, Greenwood points out that there are very few direct references to Genesis 1 and 2 in the rest of the Old Testament. Notably, Adam rarely appears after Genesis 5 and Eve is never mentioned after Genesis 4. At best, Greenwood suggests that there are what he terms numerous "echoes" or "reverberations," alluding to these opening chapters (p. 21). For example, typological allusions to the Garden of Eden appear with the expressions "the garden of God" (Ezek. 28:13; 31:8-9) and "the garden of the Lord" (Gen. 13:10; Isa. 51:3). Greenwood concludes that these echoes and reverberations are subtle evidence that the biblical authors were not concerned with the order of creative events or the time frames in Genesis 1, in contrast to the desires and assumptions of many Christians today.

Michael D. Matlock examines Jewish interpretations of Genesis 1 and 2 during the Second Temple period (roughly 587 BC to 70 AD). Exegetical practices were influenced by Hellenistic philosophical categories. Even the translation of the Old Testament into Greek (Septuagint; LXX) features, in places, Platonic con-