

experience many good aspects of the nonhuman world. Lead exposure in Flint and Grand Rapids, Michigan, highlighted these problems. In spite of these things, Part 3 describes actions people can take, the value of urban areas, and the ability of humans to alter unjust systems and to envision a world of shalom based on freely given gifts—an economy of reciprocity.

Beyond Stewardship is a thought-provoking and well-written book. Coordination of chapter format, references by each author to other chapters, and strong editing made this book an easy read. Only about five of the authors are scientists, but the science is connected to philosophy, economics, geography, theology, and other fields so well that it is appropriate reading for Christians both inside and outside the various scientific fields.

If there are weaknesses in the book, they stem from the flip side of the writing harmony of a group of close friends and colleagues. There are (possibly mistaken) assumptions about the audience's prior knowledge of American evangelicalism and general theology. Although the preface addresses this briefly, the difference between reformed theology and other theologies was not very clear. There were also some missing voices in a book that is written about connectivity. While chapters on environmental racism, human rights, and Native American approaches to the world dealt with these topics respectfully, almost all of the chapters were written by white North Americans. Including African American voices in the reformed tradition and the theology of Native American Christians, such as Terry LeBlanc or the late Richard Twiss, was not possible with the writing of the book by this particular group of colleagues. The omission was unavoidable given the origin of the project, but still unfortunate.

Beyond Stewardship skirts some difficult theological problems. For example, whether Christians believe that only spiritual death, only physical death for humans, or all physical death on Earth resulted from the Fall, believers struggle with questions about the goodness of current creation. Did sin change the world so much from God's original design without death that the lion, eagle, leviathan, and shark would not have existed except for the Fall? Alternatively, were lions and hyenas fighting over food, diseases, parasites, poisonous plants, tornadoes, and snake bites actually always part of God's good creation? How you view these ideas affects what you think God expects of humans caring for the rest of creation.

There are a number of places where authors use the Bible to support a particular statement, but then do not respond to other passages that are commonly used to conclude almost the opposite. For example, *Beyond Stewardship* stresses continuity between our mortal

world, the kingdom of God, and heaven. However, the apostle Paul appears to distinguish between flesh and spirit, worldly and heavenly (for example, John 6:63, 2 Corinthians 5). Likewise, the discussion of human kinship with animals would have been strengthened by some response to the Old Testament commandments to kill animals.

Critics of creation care, such as the Cornwall Alliance,³ express the belief that environmentalists are worshipping the environment, approaching pantheism, and believing New Age teaching. The Cornwall Alliance holds that care for the poor is not compatible with climate change response. These are common perceptions, but they were not addressed. Nonetheless, no book can touch on all of the questions raised by a new approach to caring for the world we inhabit. *Beyond Stewardship* has prepared us for a great deal of scholarship to come. As we approach global environmental crises, this hopeful, loving, and complex look at God and the created world is a breath of fresh air.

Notes

- ¹All biblical references or quotes are taken from the New International Version.
- ²Loren Wilkinson, ed, *Earthkeeping: Christian Stewardship of Natural Resources* (Grand Rapids, MI: Eerdmans, 1980).
- ³The Cornwall Alliance for the Stewardship of Creation was initially The Interfaith Council on Environmental Stewardship, which published *The Cornwall Declaration on Environmental Stewardship* in 2000 and took its current name in 2007. They claim that some Christians are falling into climate idolatry and that godly stewardship means dominion, continued human population increase, and continued fossil fuel use.

Reviewed by Dorothy F. Boorse, Professor of Biology, Gordon College, Wenham, MA 01984.



HISTORY OF SCIENCE

ON TRIAL FOR REASON: Science, Religion, and Culture in the Galileo Affair by Maurice A. Finocchiaro. Oxford, UK: Oxford University Press, 2019. ix + 289 pages. Hardcover; \$32.95. ISBN: 9780198797920.

In 1633 Galileo was condemned by the Inquisition for holding that the earth moves, something they considered "false and contrary to Scripture." After reciting an abjuration, Galileo spent the rest of his life under house arrest. His major work, the *Dialogue on the Two Greatest World Systems*, was banned and remained on the *Index of Forbidden Books* until 1835.

Maurice A. Finocchiaro is a distinguished historian of science who has written extensively on science, religion, and culture in Galileo's day. In this book, he summarizes his earlier work and renders it accessible to a wider audience. He insists that the Galileo affair should

Book Reviews

be separated from the *original* affair that climaxed in 1633, and the *subsequent* affair, which began after his condemnation and continues to the present day. Looking first at the structure of the original affair, he sees an undeniable conflict that takes the form of religion versus science, namely, religion attacking science. "The scientist Galileo," he writes, "was persecuted, tried, and condemned by institutions and officials of the Catholic religion" (p. 250). The subsequent affair also consists of a conflict between science and religion, but this time it takes the form of science versus religion. For the past four centuries, the Roman Catholic Church has been under fire from scientists and alleged representatives of the scientific method for its treatment of Galileo. This can be seen in the writings of Milton, Voltaire, and Einstein, which Finocchiaro considers merely the tip of an iceberg of anticlerical feeling. On the other side, the proclerical side, we find various apologists, such as Pierre Duhem and Paul Feyerabend, who attempted to defend the church and blame Galileo.

Finocchiaro claims to have followed Galileo's ideal of open-mindedness and to have dug below the surface of anticlerical criticism and proclerical apologetics. He believes he has found what he characterizes as a phenomenon of myth-making and mythologizing, that is, the rise, evolution, and fall of cultural myths. In the seventeenth century, various questions were raised about the physical truth of the motion of the earth, but science gradually established incontrovertibly that Galileo had been right on this issue. Galileo was also criticized for his hermeneutical principle that scripture is not a scientific authority; cultural developments also vindicated him in this regard, as is evidenced by the fact that this is now the official position of the modern Roman Catholic Church.

As it became increasingly clear that Galileo could not be validly accused of being a bad scientist, a bad theologian, or a bad logician, he started being blamed for other reasons. Some authors began to stress the legal aspect of the trial, charging that he had been guilty of disobeying the church's admonition regarding Copernicanism. Others blamed him for his epistemological realism and argued that the condemnation would have been avoided if epistemological instrumentalism had prevailed. In chapter five, Finocchiaro offers an interesting reappraisal of the first steps that the Inquisition took in 1615-1616 and that led to the condemnation of Copernicus. A high-ranking official, Michelangelo Seghizzi, is said to have enjoined Galileo to abandon completely the Copernican theory and, henceforth, not to hold, teach, or defend it in any way whatsoever. But it is also recorded that Galileo had just seen Cardinal Bellarmine who had issued a friendlier warning. Finocchiaro finds a number of inconsistencies in the available accounts, and he argues that Pope Paul V did

not intend an injunction as stringent as the one that was formulated by Seghizzi. This lack of clarity is important as it was to affect Galileo's trial seventeen years later.

Finocchiaro is also concerned with what he calls "the current spectacle of the Galileo affair." On the one hand, we witness the phenomenon of a rehabilitation movement within the Roman Catholic Church, which is exemplified in Annibale Fantoli, *The Case of Galileo* (2003). On the other hand, we see the rise of "socially oriented critiques of Galileo by leftist sympathizers and self-styled progressives," and we marvel at "the conflict between these two points of view, as well as the irony of the switching of sides" (p. 256).

In the context of the current controversies over the relationship between science and religion and between institutional authority and individual freedom, Finocchiaro pleads for a more fair-minded appraisal of the facts. We must take seriously the arguments for rejecting the ancient geostatic worldview voiced by Galileo's opponents but also defend him from uncritical praise or biased condemnation.

Few, if any, readers of this journal will want to dissent from the author's advice. It is commonsensical. We can perhaps regret that Finocchiaro did not quote recent works on Galileo in which we find a serious and scholarly attempt to explain what happened and to suggest what we can learn from the unfortunate and misguided battle between science and religion. One could mention, among other works, J. L. Heilbron's *Galileo* (2010) that offers an objective assessment of the clash between science and religion.

Reviewed by William R. Shea, Professor Emeritus, University of Padua, Italy.

THE GESTATION OF GERMAN BIOLOGY: Philosophy and Physiology from Stahl to Schelling by John H. Zammito. Chicago, IL: University of Chicago Press, 2018. 354 pages + 147 pages of notes, indices of names and of subjects. Hardcover; \$45.00. ISBN: 9780226520797.

John Zammito has published a substantial corpus of works on Immanuel Kant and contemporaries. He served as Weir Professor of History at Rice University from 2007 to 2019; this year he migrated to Rice University's Baker Residential College, where he is Baker College Chair for History of Science, Technology, and Innovation. Beyond his primary body of work on the history of ideas in the Enlightenment period, he has also authored a useful commentary on the modern ("post-positivist") history of the philosophy of science. He notes in his acknowledgment section that the present work is the result of ten years of labor. The thoroughness of his account is impressive; the book is not a quick read, and especially not if one takes the time to