The Encyclopedia of Time: Science, Philosophy, Theology & Culture

H. James Birx, ed. *The Encyclopedia of Time: Science, Philosophy, Theology & Culture.* Los Angeles: Sage, 2009. 3 vols: 1632 pp. \$400.00. Hardcover. ISBN: 9781412941648 (set).

o say that time is a broad topic is an understatement. While not a field of study in its own right, it sits at the intersection of many others. In many respects it is the cornerstone of modern physics and an inextricable part of all of the sciences. As part of our cultural history, it is one of the most enduring themes of art, music, and literature. For philosophers and theologians, it has been a topic pondered and debated for as long as their disciplines have had a name.

H. James Birx's *The Encyclopedia of Time* strives to capture the importance of time to all of these disciplines. Birx, a professor of anthropology at Canisius College in Buffalo, New York, states in his introduction that his intent is to create a work that gives its readers "a greater understanding of and deeper appreciation for the elusive phenomenon experienced as time" (xxxiii). To that end he has drawn on a wide base of over 200 contributors from around the world. Largely (though not exclusively) academics, their specialties range throughout the sciences, fine arts, humanities, and social sciences. With over 800 hundred articles in three volumes, Birx's approach is as broad as the topic itself.

Despite the breadth of the topic and the sheer size of the work, Birx does an excellent job of making it feel manageable and easy to read. In addition to a full index, each individual volume contains an alphabetical table of contents as well as a thematic "reader's guide" that lists articles by topic or theme. All articles are concluded with references to related articles elsewhere in the work as well as a short list of further readings (which, depending on the topic and contributor, may be anything from book-length works to blogs to newspaper articles). Birx also strikes a fine balance in the length of the work's articles: minor topics and articles about people typically run about a half-page while even the broadest topics such as "Myths of Creation" or "Religion and Time" rarely exceed eight pages. This makes the work's articles feel useful and engaging without being either too ponderous or oversimplified.

While *The Encyclopedia of Time* is a multidisciplinary work, its treatment of theological and religious material is among its best. Articles on major figures such as Martin Luther deftly balance biographical information with analysis of their conception of time and how those beliefs shaped their life and work. While the work generally favors shorter articles, it does not shy away from a more thorough treatment of a topic when merited. Thomas Aquinas, for example, not only has a comprehensive entry of his own, but additional articles on "Aquinas and Aristotle" and "Aquinas and Augustine" explore the influences both thinkers had on Aquinas' views.

Articles on more minor people tend to be brief but informative. Some, such as "William Daley," focus on biographical details and direct readers elsewhere ("God as Watchmaker") for a more in-depth look at their beliefs. Others, such as "William of Ockham," focus strictly on the person's relationship to the understanding of time and omit any biographical detail. While both approaches have their merit, a more consistent standard across the work would have been a nice service to readers. Being directed from an article full of dates and places to one without any can sometimes make it difficult to fully appreciate the connection being suggested.

Major articles on "Christianity" and "Judaism" summarize the religion's conception of time, the calendar, and other related topics. The major articles on Eastern religions are equally comprehensive and provide an interesting comparative framework (although the article on "Islam" is strangely lacking in comparison to the others). Articles on major concepts in time tend to be structured in an insightful manner. "Eternity," for example, explores how the idea has changed over the course of history. "Last Judgment" looks at not only the Christian conception of it, but also explores the role of a final judgment in Islam and Hinduism.

Shorter articles on lesser topics are still perceptive. Articles on the books of Genesis, Ecclesiastes, and Revelation briefly summarize key quotes and themes relating to time. Concepts like "Theodicy" and "Eschatology" are defined and followed by a brief analysis of how the concept has evolved or influenced thought over time. Unlike other works that are content to provide a simple dictionary definition of smaller topics, *The Encyclopedia of Time* deserves credit for providing at least a small amount of analysis as well.

Outside of religion and theology, the work's articles vary in terms of their quality and relevance. Birx has a strong background in evolution and paleontology, hence his treatment of topics in evolution and the biological sciences is particularly comprehensive. For articles in physics and mathematics, the simple writing style helps present complex topics in a manner that is informative and approachable. Compared to other areas, articles in the humanities and social sciences seem noticeably weaker. Articles on figures such as Julius Caesar and Karl Marx are well-written and informative but largely biographical and only tenuously connected to the idea of time. Other articles are downright frivolous. An article on wine, for example, states that "time is . . . a key factor in improving the quality of wines" (1435) and pursues little further connection.

An ambitious work in many senses, *The Encyclopedia of Time* would be a unique and worthwhile addition to theological library collections. The only apparent alternative, Taylor and Francis' *Encyclopedia of Time*, is now fifteen years old and contains far less material on people and topics germane to religion and theology. Collections with an emphasis on philosophy or the sciences may also appreciate the work's thorough and insightful treatment of their disciplines. While the work's approachable style makes it suitable for all audiences, it would be of particular use to students and casual researchers. Instructors and clergy may also find it useful for quick reference or as a bibliographic resource.

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