

century. Considerations of space preclude any detailed summary of each of the essays, but a few general points regarding their collective merits deserve emphasis. First, their primary (if not exclusive) focus on the textual worlds of the laity provide a fresh purchase on the workings of “reform” in this era, which are still too often framed in terms of a clerical/monastic perspective. Second, their dedicated effort to genuinely rupture the divide of 1500 provides still more concrete evidence of the complexities of continuity and change across the period. Third, the essays range broadly in geography, complementing a more traditional focus on France and Italy with studies that center themselves in Poland, Bohemia, Hungary, Bosnia, and beyond.

The result is a challenging range of materials and approaches, presented from often strongly interdisciplinary perspectives. For all these reasons, this volume stands as a collection that will be not only useful as a whole, but also for its individual contributions. The concrete examples in these essays will help both newcomers and specialists see more clearly the richness and diverse possibilities of studying this contested era.

James Mixson
The University of Alabama
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***On the Edge of Eternity: The Antiquity of the Earth in Medieval & Early Modern Europe.* By Ivano Dal Prete. New York: Oxford University Press, 2022. 320pp. \$37.99.**

This and other recent publications indicate that the New York branch of Oxford University Press has abandoned entirely copyediting or other editorial oversight. Only that can explain the presence of full stops instead of commas (116); short titles appearing before their full counterparts in endnotes (e.g., 250, nn. 12–13; 255–6, nn. 13, 15); the shortening of Diodorus Siculus to “Siculus” (226, n. 13); or the failure to correct the frequent use of the non-word “Noetic” for “Noachic” (“Noachian” also appears: 3, 13, 127, 204).

A shame: Ivano Dal Prete’s (DP’s) *On the Edge of Eternity* is a most important book that deserved better. Its thesis is best summarized by the author: “Historiographical common sense has long placed the discovery of ‘deep time’ in the decades between the late eighteenth and the early nineteenth century. . . . This book argues instead that the idea of an immensely old Earth circulated openly in medieval and early modern times; that for most of those centuries, it was largely unproblematic; and that the notion of a deep fracture between a pre- and a post-nineteenth-century Earth history. . . . was a product of the cultural and political tensions of the Enlightenment” (203).

DP’s narrative ranges from antiquity to the present, with primary focus on the period c. 1300–1800, and especially Italian sources. For areas outside his expertise DP relies mostly (but far from exclusively) on secondary literature. Unlike much recent Anglophone history of science, many of those secondary sources are not in English. Equally gratifying is the absence of Anglocentrism when DP reaches early modernity: we hear little about Hooke, but a lot about Antonio Vallisneri, a Padua medicine professor who supported Fracastoro’s old thesis about fossils having been deposited by

numerous pre-flood floods that occurred “in the remotest and most obscure times” (152, drawing on important recent work by Francesco Luzzini). Among many other valuable discussions, particularly significant is the point that medieval “failure” to address the dating of rock layers stemmed not from dogmatism or ignorance, but rather the emphasis on astrological factors – amenable to quantification – as the best evidence for terrestrial cycles (47–48).

DP’s thesis owes much to Pierre Duhem, although the latter’s more controversial ideas about the impact of the Condemnation of 1277 and the “medieval origins of modern science” are wisely eschewed. Volume IX of Duhem’s *Système Du Monde* (1913) supplies DP with many textual starting points. Duhem’s arguments about the plurality and independence of medieval natural philosophy, and the impact of confessionalization on curtailing some of that independence, have clearly been inspirational. Later chapters are particularly valuable for charting the erection of “the historiographical myth of a Christian tradition that uniformly rejected the antiquity of the world” (8). They should be required reading for all historians of the so-called “Enlightenment,” who still tend to swallow such myths wholesale.

As will be clear, I am very much in favor of DP’s approach and broader conclusions, and warmly recommend his book to all historians of science, religion, and intellectual change. Still, I have some qualms and questions that might be addressed in subsequent discussions. Some stem from book’s brevity (perhaps because of Press intervention where it *wasn’t* required?). This creates imbalances. DP mostly proceeds as a contextual historian of ideas, summarizing one thinker/text after another. Only when he discusses the Veneto do we get detailed social context (e.g., 111, 190). It would have been good to hear more about other institutional settings. For example, medieval Arts teachers focused on Aristotle’s *Meteorology* in specific institutional environments; many ignored it or treated it lightly.

On medieval natural philosophy, DP occasionally implies that the majority were “naturalists” in the tradition of Boethius of Dacia or the Italian Aristotelians of the sixteenth century, separating philosophy entirely from theology and working with the assumption of eternalism while making only brief concessions to scriptural creationism. But the “mainstream” scholastic position was somewhat different. Take John Buridan (c. 1301–1362), whose unusually long career as an Arts master *did* lead him to engage deeply with the *Meteorology*. DP has him standing “on the edge of eternity” (59) and even being hypothetically “familiar” with the kind of indefinitely old Earth much later posited by James Hutton (205). But while Buridan began his reasoning with the Aristotelian assumption of eternity, unlike the naturalists he then took the Biblical idea of creation as a scientific “fact,” building extensively upon it. Here DP should have engaged with Edith Sylla’s “The role of theology in John Buridan’s natural philosophy” (2001) and Edward Grant’s *Planets, Stars, and Orbs* (1994), chapters 4 and 5, both not cited.

A similar tendency slightly to “radicalize” individuals appears when DP reaches early modernity. Athanasius Kircher is said to have “envisaged a history that encompassed at least 8,000 years” (125). I was eager to read the primary text for this striking claim, but the endnote is disappointing: it refers to p. 183 of Anthony Grafton’s essay on “Kircher’s chronology” (2004), where the quotation about “8,000 years” is from Joseph Scaliger, and where Grafton asks “Did Kircher consistently see time as deep and history as without a clear beginning?” and answers “Certainly not.” Similarly, DP sometimes conflates someone’s refusal to attribute all geological data (e.g., fossils) to the impact of the Biblical Flood with belief in deep time or even eternalism, without direct evidence for the latter (e.g., 96–7, 140–2, 157, 165).

Still, these are things worth discussing further. On only one issue do I think DP has gone more seriously astray: his repeated assertion that early modern diffusionism was a superstructural justification for colonialism, with “Christian universalism, imperial dominion, and racial exploitation” being “the fulcrum on which everything hinged” (137), because universalism rendered Americans and others amenable to salvation. Even more extraordinary is the claim that the spontaneous generation of humans or even polygenesis were standard, oft-held positions before the sixteenth century (e.g., 135, 162). No evidence is provided for these contentions; the truth was the opposite. Spontaneous generation was more suited to colonialist arguments than diffusionism, since it rendered “Indians” akin to insects. Polygenesis was *never* common: the famous T-O maps (not mentioned) showing which continents had been settled by which of Noah’s sons were widespread before and after 1492. The ubiquity of diffusionism had little to do with colonialism, let alone the belief that “Americans. . . were further removed from Adamic perfection than white Europeans” (133). Polygenesis, far from being part of a great anti-colonial argument (cf. 177), only attained popularity when deployed in racialized justifications for slavery from the late eighteenth century onwards, with black people and others being deemed to be of an inferior, non-Adamic race.

Here, I suspect DP has been misled by the pressure in current American academia to find race everywhere, even when evidence is absent. Brutal as it was, early modern colonialism was almost always justified in other ways. If racial hatred deserved a place in DP’s story, it would be the anti-Semitism that was used to downplay the authority of the Old Testament by Voltaire and other “enlightened” writers. DP neither mentions this, nor much address the large changes that occurred in the *philological* study of scripture in early modernity.

As this last point suggests, there is still much to learn about the fascinating mix of “proto-geology,” Biblical exegesis, and antiquarianism that was pre-modern Earth history. Happily, in the last two years alone, excellent PhD theses on these topics have been defended by Mathijs Boom, Nuno Castel-Branco, Derrick Mosley, and Jeremy Schneider. One cannot fail to be excited by the promise of future findings and discussions, not least those stimulated by DP’s significant, thought-provoking book.

Dmitri Levitin
University of Utrecht/All Souls College, Oxford
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Images in the Borderlands: The Mediterranean between Christian and Muslim Worlds in the Early Modern Period. By Ivana Čapeta Rakić and Giuseppe Capriotti. Medieval and Early Modern Europe and the World, vol. 1. Turnhout: Brepols, 2022. 309 pp. \$125 cloth. Open-access e-book: <https://doi.org/10.1484/M.MEMEW-EB.5.123930>

This collected volume examines diverse examples of contact and conflict between Christian and Muslim societies in the early modern period, focusing in particular