

other previously untapped sources to update Bate's biography and derive new insights concerning his personality. Chapter 3, by Juste, documents the full sweep of Bate's preserved writings on astrology and astronomy. What follows are Vanden Broecke's reflections on the text's genre and purpose (Chapter 4) and in Chapter 5 Juste's reconstruction of the enormous library of astrological sources – most of them translations from Arabic or Hebrew – that Bate must have had access to when writing the *Nativitas*. Drawing on copious new manuscript evidence, Juste convincingly argues that Bate's astrological expertise grew through his close contacts to like-minded intellectuals based in Paris, including Peter of Limoges and William of Saint-Cloud (Chapter 5). Chapter 6, contributed by Shlomo Sela, offers some observations on Bate's role in the translation of Abraham Ibn Ezra's corpus of astrological texts from Hebrew into Latin as well as his use of these texts in his own work. Finally, Chapter 7 takes a look at the techniques Bate used to rectify the ascendant and analyse his own natal chart. Vanden Broecke's succinct, but helpful remarks on these topics reveal the considerable leeway astrology gave its practitioners when it came to picking and choosing between signifiers and tailoring their interpretation to known empirical data.

It would require an undue amount of space to list all of the aspects that make this edition of Bate's *Nativitas* an arresting source for anyone interested in medieval intellectual and cultural history. Most importantly, perhaps, the book subtly undermines facile clichés about the nature of medieval astrology and in their place gives us a glimpse of the inner workings of the art, revealing an occasionally stunning degree of complexity and psychological depth.

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An Apology for Giordano Bruno

Burned Alive: Giordano Bruno, Galileo and the Inquisition. Alberto A. Martínez (Reaktion Books, London, 2018). Pp. 348. \$40. ISBN 9781780238968.

This book is an apology for Giordano Bruno, his relevance for the history of science and the continuity between his philosophical views (and trial) and those of Galileo. It aims to overcome the oblivion of his contribution to scientific thought due to the Inquisition's success "in preventing people from Bruno's beliefs" (p. 8) through his execution and the subsequent condemnation of Galileo.

Chapter 1 deals with Bruno's "Pythagorean heresies": stars seen as worlds, the infinity of the universe, the existence of earth-like planets outside the solar system as well as universal vitalism, the doctrine of the world-soul and metempsychosis. The Inquisition, according to Martínez, was especially directed against doctrines such as these, thought to revive anti-Christian paganism or heresies that the Church Fathers already condemned (particularly cosmic vitalism and the plurality of worlds). Martínez rightly looks at the

documents of Bruno's trial in order to reconstruct the reasons for his condemnation; yet, he neglects to delve into his hero's writings and to make himself better acquainted with Bruno scholarship in order to comprehend his philosophy. Had he done so, he would have noticed Bruno's eclectic use of his sources and the novelty of his natural-philosophical proposal, which cannot be reduced to a Pythagorean conception *tout-court* (just as the Inquisition's condemnation of scientific conceptions cannot be understood as an early-modern repetition of clashes between early Christianity and pagan philosophies). Also, Martínez confuses the Pythagorean and atomistic sources of Bruno's cosmology (relative to infinitism and the plurality of worlds) and neglects the neo-Platonic element (the world-soul doctrine) as well as the astronomical sources.

Chapter 2, "Aliens on the Moon?," deals with Brunian echoes in the Galileo Affair and points to the Church's concerns (especially Bellarmine's) about the dissemination of the "Pythagorean heresy." But can a pagan philosophy count as a heresy at all? Pythagoreanism was allegedly implied by vistas on universal life and inhabitants of the heavens. Kepler's and Campanella's vitalistic conceptions are also discussed in this regard. However, considering the variety of positions these thinkers embraced, their grouping under a single "Pythagorean" school confuses rather than illuminates their specificities. It possibly reinforces the perspectives of their critics (and of Copernicus' system and new natural approaches) to the point that Foscarini's defence of the scriptural tenability of heliocentrism is naively presented as "creeping towards the views of the heretic [Bruno]" (p. 141).

Chapter 3, "The Enemies of Galileo," reconstructs events connected with the censure of his Copernican *Dialogo*, his abjuration and condemnation. Martínez's most original contribution to the well-known story is an overview of a large manuscript *Against the neo-Pythagoreans' moving earth* (ca. 1635) by the Jesuit theologian Melchior Inchofer, who acted as a member of the committee that judged Galileo's case. The text, only an abridged version of which was printed in 1633, can be seen as a long explanation of "why the Inquisition acted against the Copernicans" (p. 212). Lacking sufficient mathematical education, the Jesuit censor especially attacked the philosophical conceptions of the Copernicans alongside "Pythagorean theses" such as the plurality of inhabited worlds and universal animation. Regrettably, the reader is not here offered a "full scholarly analysis of its content" (p. 215), but this is announced as a promising future topic of research.

The final chapter is a coda in which Bellarmine's death, with an odour of sanctity, is opposed to those of the two Pythagorean victims of Inquisitorial violence: Bruno, who was "burned alive" as the crude title of the volume reminds the uninformed reader, and Galileo, who was denied the funerary monument in the Church of Santa Croce in Florence that his patron, the Grand Duke of Tuscany, had so desired.

Martínez sees the rescue of the "martyr for freedom of thought" (p. 279) as an urgent remedy against his undue exclusion from the history of science. The claim sounds bizarre, though. It stands in stark contrast to the triumphant monument erected in Rome in the nineteenth century on the site of his execution, an image of which dominates the cover of the book. Is it not a clear witness that Bruno is still alive in our cultural memory? Not to speak of his constant presence in modern thought and the history of philosophy? Nor have his conceptions been neglected in the history of science, given the centrality allotted to his cosmology by classics such as Alexandre Koyré's *Études Galiléennes* and

From the Closed World to the Infinite Universe, as well as by more recent studies, among which those by Miguel Ángel Granada figure most prominently.

Martínez's narrative is singular in that it traces the connection between Bruno and Galileo as a "cult of Pythagoras" rather than along ostensible lines of continuity on issues such as the physical defence of Copernicus' planetary theory. Martínez even ranks Bruno's infinitist cosmology higher than the astronomical contributions of Copernicus, Kepler and Galileo because, with the benefit of hindsight, he hit truths that the others did not even dream of, for instance, the existence of exoplanets. Yet, Martínez's reconstruction lacks an adequate acquaintance with intellectual history, particularly with the neo-Platonic and Ficinian roots of the conceptions he discusses, as well as the necessary familiarity with the history of Counter-Reformation Italy and the Inquisition. As a result, his work cannot go beyond the level of popularization and results in a Manichean narrative of the fight between "good" Pythagoreans and "dogmatic" orthodoxies. The complexity of the Renaissance philosophical and scientific controversies over the order of the world and the heavens remains out of Martínez's reach.

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Between Celestial and Terrestrial Harmony

The Pursuit of Harmony: Kepler on Cosmos, Confession, and Community. Aviva Rothman (The University of Chicago Press, Chicago, IL, 2017). Pp. 355 + viii. \$55. ISBN 9780226496979.

Over a series of "emblematic episodes" (p. 109), Aviva Rothman traces the career of Johannes Kepler (1571–1630) and his theory of world harmony. At the heart of her analysis are the ideological principles that prompted Kepler to recast his role as a mathematician and citizen of learned society. In the span of six chapters, Kepler is shown to support a community "characterized by multiple perspectives and practices" (p. 179), where members could mend their differences by heeding the harmony of the heavens. The result is a revolutionary vision that ran counter to the raging discord of the day. Plagued by religious persecution and surrounded by political uncertainty, Kepler relied on the resources of mathematics and moral philosophy to promote the prosperity of church and state through a plurality of opinions and polyphony of voices. Rothman structures her highly detailed account around different categories and communities whose boundaries Kepler blurred in his bold emphasis on dissent as a defining characteristic of peace. In closing, Rothman encourages her readers to regard the moral ideals of Kepler as still "worth embracing" today (p. 282).

Rothman thoughtfully explains the metaphysical ideas that inspired Kepler on his quest for harmony. In Chapter 1, she argues that Kepler first broke with his Lutheran brethren on