

Charles Burnett and Dorian Gieseler Greenbaum (eds.), From Māshā'allāh to Kepler: Theory and Practice in Medieval and Renaissance Astrology (Ceredigion, Wales: Sophia Centre Press, 2015), 529 pp., £35.00 (pbk), ISBN: 978-907767-06-7.

One of the thorniest questions for historians of medieval astrology concerns the relationship between theory and practice and, in particular, the extent to which astrologers actively practised the art reflected in their textbooks and instruments. As Charles Burnett and Dorian Gieseler Greenbaum comment in their Introduction to this volume, it continues to be the case that historians writing about astrology have focused on issues that matter more to modern scholars, to the social context of astrology, or to the arguments against its efficacy, theological legitimacy, or rationality, rather than medieval and Renaissance contemporaries. It is thus very welcome to see this dense collection of essays by leading practitioners addressed to different aspects of the central conundrum: what did medieval and Renaissance astrologers do? From across the different points of the astrological world, some eighteen authors respond to this question. The final volume makes up a very satisfying outcome to a conference that ran at the Warburg Institute, London in 2008. The book has had a long gestation period (during which one of the contributors, Giuseppe Bezza, passed away) but it is worth the wait

The volume presents an eclectic mix with no clear unifying themes other than that most contributors demonstrate an interest in astrology in particular contexts and times. The essays have been ordered by the simplest of all organising principles, alphabetical by author. It might have helped scholarly and educated astrologer readers if ordered by another principle, chronological order perhaps, or the geographical focus of particular papers. There are some omissions; there is little or nothing about medicine, for example, that most practical of astrological pursuits. But there is much to enjoy and learn here with accounts that range geographically from Morocco and England in the far west to Baghdad in the east, and from the reception of the second-century Ptolemy to Nicholas Culpeper in the seventeenth. There are essays that delve deeply into particular techniques and theories of astrology and broader reflections on the philosophy and theory of astrology.

Bernadette Brady, Geoffrey Cornelius, and Josefina Rodriguez-Arribas consider questions relating to the philosophical status of astrology for contemporaries. The focus of Brady's essay is Galileo's *Astrologica nonnulla*, which she uses to examine the philosophical basis of his natural world, whether Platonic or Aristotelian, or something else. Helpfully printing the tables that Galileo used to calculate the lord of the nativity for different natal horoscopes, Brady suggests that Galileo absorbed the Arabic notion that the heavens were a changing rather than a static canvas. Astrology, she suggests, provided Galileo 'with a different place to think', and reflect his restive



mathematical intelligence (p. 99). Cornelius provides an analysis of the use made by Cardano of 'aphorisms', or sets of pithy astrological guides to interpretation of which the pseudo-Ptolemaic *Centiloquium* was the most influential. Cornelius concludes that astrological interpretations were not 'scientific' but are better understood as judgments, and that the heavens, for astrologers, were (and no doubt still are) signs that they were called to interpret. Steven Vanden Broecke provides a deeply interesting interpretation of annual prognostications, the well-known Renaissance genre of specially commissioned astrological predictions produced by cities for particular years. He convincingly suggests that these have a much older pedigree than the Renaissance and go back to Hellenic mundane astrology. More importantly Renaissance prognostications were targeted at princes and rulers but reflected the medieval philosophical culture of divine and cosmic guidance, a source of reassurance rather than anxiety in an unruly world.

A number of contributors focus on particular techniques and branches of astrology. Jean-Patrice Boudet looks at the rise of the horoscope of the city, which is largely absent from the medieval corpus of practical astrology but emerged in force in the fifteenth century. He suggests that, rather like the prognostics considered by Vanden Broecke, city horoscopes were attempts to harmonise the known historical events associated with particular places with their political present. This essay is a real treasure as it gathers together many existing examples of Renaissance city horoscopes, of which there are almost no contemporary medieval examples. The late Giuseppe Bezza looks at the doctrine of the Great Year, a Greek cuckoo in the overwhelmingly Arabic corpus of the branches of astrology known to medieval practitioners. Despite vigorous attempts to reform it away, he concludes that most astrologers were swayed by the grandness of conjunctionist doctrine. Meira B. Epstein examines the way in which astrologers learnt their art, using the textbooks of Abraham Ibn Ezra (fl. 1148) to map the path taken by teachers from fundamentals to reasoning to analysis. Her conclusion, that the purpose of the textbooks of Abraham Ibn Ezra is fundamentally pedagogic rather than encyclopaedic in intention, might be extended with profit to other scholastic teachers and scholars. Similarly, H. Darrel Rutkin has made teaching his theme in his important foray into the voluminous Renaissance commentaries on Ptolemy's Tetrabiblos.

Astrology provided a universal theory and was remarkable for the extent to which a single corpus of authorities was deployed across almost the entire medieval world. But there were regional differences. Julio Samsó examines the practice of astrology in Morocco in the late fourteenth and fifteenth centuries, based on a study of two astrological treatises written for that realm. This is a limited knowledge base on which to cultivate too many assumptions, but it would seem that Moroccan astrologers practised all the known branches of traditional astrology plus some outside the main tradition and that the known orthodoxy and rejection of astrology by the tenth Marīnin sultan of Morocco did not constrain their practice.

I have not tried to exhaust the riches of this volume, which will be of use and interest to all scholars of medieval astrology. This is a scholarly, valuable, and well-produced book that is well worth its (very reasonable) purchase price.

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