

From Māshā'allāh to Kepler: Theory and Practice in Medieval and Renaissance Astrology. Edited by Charles Burnett and Dorian Gieseler Greenbaum. Sophia Center Press, University of Wales, Trinity Saint David. Ceredigion, 2015. xx + 529 pp.

Charles Burnett (Warburg Institute, University of London) and Dorian Gieseler Greenbaum (University of Wales Trinity St David) present this collection of articles that cover different aspects of the history of astrology and stem from a conference on the same subject at the Warburg Institute in November 2008, although not all the participants at the conference have a contribution in the book. The volume is dedicated to the late Giuseppe Bezza (21 September 1946-18 June 2014), who passed away before the bringing out of the book, and has the first place in the list of articles presented in alphabetical order of authors.

The stated intention of the publication is “to look at the subject from the inside” and to this respect the editors pose a series of questions: “What did *astrologers* write about astrology and how did they teach their subject and practise their craft? What changes occurred in astrological theory and practice over time and from one culture to another? What cosmological and philosophical frameworks did astrologers use to orient their practice? What place did astrology have in universities and academies?” (p. 2). Adequate answers to all these queries required getting together essays from a large variety of specialists, which combine historians from the academic milieu and practising astrologers who have an interest in the history of their own discipline. The diversity of provenances and curricula of the authors may be estimated from the list of contributors on pp. 513-518.

Four articles, of particular interest for the readers of *Suḥayl*, deal specifically with the practice of astrology in the Islamicate area:

- Jan P. Hogendijk, in “Al-Bīrūnī on the computation of primary progression (*tasyīr*)”, pp. 279-307, contributes an English translation and commentary of the passages dealing with the astrological progressions (*tasyīr*) in al-Bīrūnī’s *al-Qānūn al-Mas‘ūdī*, his major work on astronomy, written between 1030 and 1040. In a clear and didactic exposition, this paper contains an analysis, with numerical examples, of the mathematical details of the exact and approximate computational methods for the practical resolution of the *tasyīr*

given by al-Bīrūnī in Sections 1-4 of Chapter 5 of the astrological Book 11 of the *Qānūn*. In the appendix with the English version of these sections, Hogendijk also includes the translation of al-Bīrūnī's cynical introduction to astrology in his preface to Book 11 of the *Qānūn*, and elsewhere (p. 280) he quotes a similar passage from al-Bīrūnī's introduction to his *Kitāb al-taḥfīm*. Both texts are interesting from the point of view that they illustrate the fact that astronomers and mathematicians of the highest level, in spite of providing the astrologers with the computational tools they needed for their practices, may also show in the same works their sceptical attitude towards astrology.

- Miquel Forcada, “Astrology in al-Andalus during the eleventh and twelfth centuries: Between religion and philosophy”, pp. 149-176, is a complete panorama about the changing situation of astrology under the different rulers and social environments throughout the periods of the history of al-Andalus, from the early stages of astrological activity before the mid-ninth century, through its golden age during the eleventh century after the collapse of the Umayyad caliphate, to the later decline of astrological practice when the North African dynasties came into power. Forcada analyses the arguments in favour of astrology by the eleventh-century Zirid king of Granada, ‘Abd Allāh b. Bulluggīn, in contrast with the anti-astrological opinions of the religious scholars Ibn ‘Abd al-Barr, al-Bāḥī and Ibn Ḥazm, and philosophers like Ibn Bājja and Ibn Rushd. The last section of the paper explores the existence of astrological materials in other disciplines, emphasizing the large number of astrological texts found in agronomical sources.
- Julio Samsó, in “Astrology in Morocco towards the end of the fourteenth century and beginning of the fifteenth century”, pp. 407-424, examines two different approaches to astrological prediction in two Moroccan sources of the Marinid period. The first one, written between 1372-1374, is Ibn Qunfudh's commentary on the *Urjūza fī aḥkam al-nujūmiyya* (astrological poem in *raḥaz* meter) by the famous astrologer Ibn Abī l-Rijāl, and represents an instance of what Samsó calls standard astrology, containing a collection of glosses explaining the contents of Ibn Abī l-Rijāl's poem, and a series of twelve commented retrospective horoscopes as examples of astrological predictions. The second source, written probably after 1418, is the *Kitāb al-amṭār wa l-as‘ār* (Book on rains and prices) by Abū ‘Abd Allāh al-Baqqār, related to the ‘system of the crosses’ (*aḥkām al-ṣulub*), a primitive astrological method used by the ancient Romans of al-Andalus, Ifrīqiya and the Maghrib, derived from a late Latin source and based on combinatorial techniques. One of the main

concerns of al-Baqqār's text is the use of astrology for forecasting the weather and the oscillation of prices of agricultural products. The paper also analyses the reasons given by the authors for the practice of astrology in order to make it compatible with the Islamic religion, based mainly on the idea that the stars do not really exert influences on the world, but they are indicators that make it possible to adopt preventive measures in order to avoid future misadventure.

- Petra G. Schmidl, "Lunar elections in Ibn Raḥīq's folk-astronomical treatise", pp. 425-453, deals with the use of the position of the moon with respect to twenty-eight divisions of the ecliptic, called lunar mansions, for choosing the most appropriate moment for an important event, a procedure that represents a non-standard and non-mathematical variant of the general doctrine of astrological elections. To illustrate this practice, Schmidl uses a folk astronomical treatise by Ibn Raḥīq (probably a legal scholar from eleventh-century Hejaz), only partially preserved in one manuscript, and presents the English translation of the relevant passages containing the description of the auspicious and inauspicious actions when the moon is at a particular lunar mansion, concerning economic, social and political matters. The paper points out that, at the moment, Ibn Raḥīq's treatise is the only known purely folk astronomical treatise listing these 'lunar elections', but they are found in other sources of various backgrounds, including astrological, religious and magical works. The author also assesses the evidence pointing to the possible Indian and Greek origins of the lunar elections, and comes to the conclusion that their inclusion in Ibn Raḥīq's treatise may have a practical component, since a list with the lunar elections is easier to use than calculating a horoscope, whereas their occurrence in religious texts may have to do with the use of the moon for religious purposes.

A second group of four contributions focus on the evolution of specific astrological techniques through different cultural areas and astrological traditions:

- Giuseppe Bezza, "Saturn-Jupiter conjunctions and general astrology: Ptolemy, Abū Ma'shar and their commentators", pp. 5-48, is a thorough examination of the transmission of the predictive doctrine of great conjunctions, from its roots in Greek astrology to the development of the authoritative theory on the subject in the Arabic medieval world, and its reception in the Renaissance;
- Jean-Patrice Boudet, "From Baghdad to *Civitas Solis*: Horoscopes of foundations of cities", pp. 49-76, explores in depth the practice of casting horo-

- scopes of the foundations of cities, collecting information and examples ranging chronologically from Greek antiquity to the Italian Cinquecento;
- Robert Hand, “Evidence in Bonatti for the practical application of certain astrological techniques”, pp. 201-230, demonstrates with textual evidence how the demand of astrological advice on military strategy in late medieval and early modern Italy fostered the evolution of the materials received from the astrologers of the Arabic world;
 - Josefina Rodríguez-Arribas, “Quantitative concepts in Hellenistic and medieval astrology”, pp. 325-352, is fruit of a research on the use of specific terms in Hellenistic and medieval astrological texts that indicate a concern of astrologers about establishing the degree of reliability of astrological judgements and approaching their discipline from a quantitative methodology.

Three papers cover the Jewish medieval astrological tradition, two of them centred on the work of the twelfth-century scholar Abraham Ibn Ezra:

- Meira B. Epstein, in “Curriculum by design: Abraham ibn Ezra’s astrological texts”, pp. 123-148, surveys Ibn Ezra’s astrological books and finds abundant evidence to support the idea that they were devised as teaching texts for the instruction of students;
- Shlomo Sela, in “Abraham ibn Ezra’s interpretation of astrology according to the two versions of the *Book of Reasons*”, pp. 455-471, focuses on Ibn Ezra’s attitude towards astrology and his creative approach in order to interpret it in agreement with the sciences of his age;
- Piergabriele Mancuso, “Cosmological traditions in Judeo-Byzantine South Italy: A preliminary analysis”, pp. 308-324, calls attention to the relevance in the cosmological debate of Jewish astrological texts circulating in southern Italy during the period of cultural renaissance that took place in that region between the eighth and the tenth centuries.

Finally, the remaining seven papers contribute new information about the theory and practice of astrology in the Renaissance period:

- Bernadette Brady, in “Galileo’s astrological philosophy”, pp. 77-100, analyses Galileo’s astrological papers known as *Astrologica nonnulla* and suggests that the knowledge of the Arabic astrological tradition provided Galileo with

- a particular mindset that allowed him to deal with physics outside the Aristotelian-dominant framework;
- Geoffrey Cornelius, “Interpreting interpretations: The aphorism in the practice of the Renaissance astrologers”, pp. 101-121, concerns the role of practical aphorisms in the transmission of astrological knowledge, the author analyses the treatment of a sixteenth-century natal horoscope and contends that historians have not adequately understood the metaphorical language of astrology;
 - Dorian Gieseler Greenbaum, in “Kepler’s personal astrology: Two letters to Michael Maestlin”, pp. 177-200, deals with the epistolary exchange between Johannes Kepler and his former teacher discussing the natal charts of their two newborn sons, who unfortunately were to pass away shortly afterwards;
 - Stephan Heilen, “Paul of Middelburg’s *Prognosticum* for the years 1484 to 1504”, pp. 231-278, presents a detailed summary and announces the complete edition of a predictive text covering the whole period of influence of a Saturn-Jupiter conjunction;
 - H. Darrel Rutkin, “Teaching astrology in the 16th century: Giuliano Ristori and Filippo Fantoni on pseudo-prophets and other effects of great conjunctions”, pp. 353-406, presents original sixteenth-century texts to describe the details of the teaching of astrology at the University of Pisa at the time Galileo was a student there;
 - Graeme Toby, “Dr Reason and Dr Experience: Culpeper’s assignation of planetary rulers in *The English Physitian*”, pp. 473-490, gives an account of a seventeenth-century popular synthesis of astrological medicine based on the theory of connections of plant medicines with the seven planets;
 - Steven Vanden Broecke, “Self-governance and the body politic in Renaissance annual prognostications”, pp. 491-512, discusses the traditional interpretations given for the practice of prognostications in the early Renaissance and portrays them as an instrument of political governance.

These eighteen articles are independent from each other but, taken as a whole, they perfectly fulfil the purpose of giving a complete idea of the different aspects of the practice of astrology in the Middle Ages and the Renaissance, and illustrate as well the variety of approaches that researchers use to analyse the history of astrology.

JOSEP CASULLERAS