

Ron B. Thomson (ed.), *Pseudo-Māshā'allāh, On the Astrolabe*
2 vols. Waterloo, ON: Volumes Publishing, 2022. Pp. x + 556, x + 583.
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The result of twenty-five years of research, this book deals with one of the most copied and popular works on astrolabes from medieval Europe. This work consists of two parts, detailing (1) the construction and (2) use of an astrolabe. It was historically misattributed to Māshā'allāh ibn Atharī, a ninth-century scholar from Iraq. Several modern scholars, among them Paul Kunitzsch and Julio Samsó, argued that the part on the construction is in fact a compilation from different sources, mostly from the Islamic world, while the second part on the use is rather a Western contribution, albeit one that has been influenced by sources from the Islamic world. Thomson furthers this assessment after his thorough examination. He identified, located, acquired copies of and studied two hundred manuscripts that contain full or partial versions of the text. The main body of the present book is a critically edited version of the Latin text and a translation from Latin to English. Volume 1 covers the first part on the construction and Volume 2 the second part on its use.

Thomson provides a detailed list of copies of this work. The list includes locations, folio information and, perhaps most importantly, which chapters of the work are contained in each copy. Moreover, he identifies manuscripts that have been wrongly labeled as copies of this work. This is particularly useful for researchers doing further studies on this topic. While he introduces some guidelines to his editing process, Thomson points out that this study is not a full textual analysis. A complete critical account of the two hundred copies would have been extremely laborious, and the book would have become far more voluminous with the inclusion of notes on centuries of copying mistakes, mistransliterations of Arabic words and misinterpretations of numerical notations. Thomson's approach, therefore, is more practical. He notes mistakes/differences only where they affect the meaning. Harmless mistakes are intentionally neglected from the editing anecdotes.

This is a common problem in creating a critical edition of a historical text, especially if it is a multilingual work. For instance, Arabic terminology and names are often recorded as they were sounded out in Latin texts, which makes it hard to match them with the actual term or name. This is no different when the work is translated from Latin to Arabic. Thomson tries to tackle the task of creating a correct account of the multilingual terminological edition and translation by introducing a short index of the Arabic terms for the parts of an astrolabe. Another problem for Thomson's project was the star catalogue. According to Thomson, the catalogue is included in only some of the copies, and unfortunately the number of stars and their values vary from copy to copy. Ample errors and mistransliterated Arabic names did not make editing easier. He provides an updated catalogue, improved from Kunitzsch's 1981 article 'On the authenticity of the treatise on the composition and use of the astrolabe ascribed to Messahalla' (*Archives internationale d'histoire des sciences* 31 (1981), pp. 42–62). In addition to this catalogue, an appendix in Volume 2 gives modern values of the stars and the folio info for each of them wherever they are mentioned in the text. A useful index for variants of star names is also provided. Finally, Thomson accumulated all diagrams from different copies and created a fully covered edition with all diagrams redrawn and correctly labelled.

Astrolabes were arguably the most popular scientific instruments in the premodern history of science. Hundreds of extant examples from both the Islamic world and the West provide ample evidence for their popularity and importance. They are also the crown jewels of history-of-science museums around the world, a symbol of the development of mathematical sciences. An abundance of secondary sources discuss their use and there are fewer, but sufficient, texts detailing their construction. Yet modern or contemporary studies on historical texts on astrolabes are not as numerous as one would expect. The number of critical editions and translations into modern languages remains limited. That being said, historians of science like Richard Lorch, Josefina Rodríguez-Arribas and Samuel Gessner made valuable contributions to changing this unfortunate circumstance.

Thomson's work is certainly a welcome addition to this endeavour. In fact, his book is particularly important since this edited two-part work may be the most popular work on the astrolabe in Europe. Some early efforts at its examination and translation may have laid the groundwork, but this edition now provides plenty of information for future studies on this area. Despite this, one issue should be highlighted here. This book is a straightforward critical edition and translation. Considering the importance of the edited work throughout European history of science, it cries out for contextualization. There is no denying that finding and examining two hundred copies of a work is indeed a task worthy of lengthy and extensive research. Nevertheless, who could be better suited to placing this important work in its context within the history of science than the scholar who studied it so thoroughly? Even so, this book will prove quite useful to researchers, especially students, studying the history of astronomical instruments and the transfer of knowledge between regions and generations. Perhaps one of these scholars will take up the task of completing this significant work by supplementing it with a historical study.

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Gabriele Ferrario, *The Book on Alums and Salts of Pseudo-Rāzī: The Arabic and Hebrew Traditions*

New York: Routledge, 2024. Pp. 220. ISBN 978-1-032-86940-7. £32.00 (paperback).

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Gabriele Ferrario's edition and translation of the Arabic and Hebrew versions of the chemical treatise *On Alums and Salts* is a praiseworthy contribution to history of medieval and early modern science. Composed in Arabic in eleventh-century Iberia, according to Julius Ruska (p. 9), the treatise was attributed to the famous Arabophone medical and chemical author Abū Bakr Muḥammad ibn Zakariyyā' al-Rāzī (d. 925 or 935), apparently by its twelfth-century Latin translator Gerard of Cremona (p. 6). The treatise's recipes and characterizations of chemical materials and operations circulated widely in Western Europe in Latin and Hebrew. Ferrario presents the *editio princeps* of the unique Hebrew manuscript, alongside a re-edition of the unique Arabic manuscript, previously edited by Ruska, with