

the same scholar, he blended the contents of the extant manuscripts and rearranged the material alphabetically in order to facilitate consultation of the work. Likewise, he omitted particular sections of the text and the linguistic analysis of non-Arabic terms. What we have now in the present volume is not only a scholarly Western edition, but also—and more importantly—a work produced by a fortunately assembled team of specialists in Arabic linguistics, botanic lexicology and dialectology. The solid backgrounds of F. Corriente, J. Bustamante and M. Tilmatine in these fields can only result in a major contribution to Islamic studies in general and—when completed with the Spanish translation and study—in an indispensable tool for scholars dealing with the history of medieval Islamic medicine, pharmacology and allied sciences.

Cristina Alvarez Millán

King, David A., *In Synchrony with the Heavens. Studies in Astronomical Timekeeping and Instrumentation in Medieval Islamic Civilization. Volume One. The Call of the Muezzin*. Islamic Philosophy, Theology and Science. Texts and Studies. Edited by H. Daiber and D. Pingree. E.J. Brill, Leiden-Boston, 2004.

King, David A., *In Synchrony with the Heavens. Studies in*

*Astronomical Timekeeping and Instrumentation in Medieval Islamic Civilization. Volume Two. Instruments of Mass Calculation*. Islamic Philosophy, Theology and Science. Texts and Studies. Edited by H. Daiber and D. Pingree. E.J. Brill, Leiden-Boston, 2005.

*In Synchrony with the Heavens* is another excellent contribution by David King to the history of medieval Arabic science. It includes thirty-three studies carried out at different times but focused on two main subjects: timekeeping by the stars, and astronomical instruments.

Volume One presents various studies dealing with timekeeping by the sun and stars and the regulation of the astronomically defined times of Muslim prayers. The author has gathered a set of independent studies which were not intended to form part of a book, but which, together, form a coherent whole. The studies are as follows:

I) A survey of tables for timekeeping by the sun and stars; II) A survey of tables for regulating the times of prayer; III) A survey of arithmetical shadow-schemes for time-reckoning; IV) On the times of prayer in Islam; V) On the role of the muezzin and the muwaqqit in medieval Islamic societies; VI is divided into: VIa) Universal solutions in Islamic astronomy and VIb) Universal solutions from Mamluk Syria and Egypt; while VII has three parts: VIIa) On the orientation of medieval Islamic

architecture and cities, VIIb) Architecture and astronomy: The ventilators of medieval Cairo and their secrets and VIIc) Safavid world-maps centred on Mecca; VIII: Aspects of practical astronomy in mosques and monasteries; IX: When the night sky over Qandahar was lit only by stars.

Volume Two deals with astronomical instruments. As the author states in the preface of the book, the instruments for observation and calculation devised in medieval Islamic societies constitute the missing link between the instruments of the Greeks and those of the late Europeans before the invention of the telescope. Once again, the studies collected here were not intended to form a book, and in this case the internal relationship between the studies is not as close in the first volume. The numeration of the articles follows on from Volume One:

X) Astronomical instrumentation in the Islamic world; followed by XI) An approximate formula for timekeeping (750-1900); XII encompasses two papers: XIIa) On the universal horary quadrant for timekeeping by the sun and XIIb) On universal horary dials for timekeeping by the sun and stars; while XIII consists on 6 studies: XIII) Selected early Islamic astrolabes; XIIIa) The neglected astrolabe – A supplement to the standard literature on the favourite astronomical instrument of the Middle Ages; XIIIb) The oldest astrolabe in the world, from 8th-

century Baghdad; XIIIc) Astrolabes from late-9th- and 10th-century Baghdad; XIId) A medieval Italian testimonial to a forgotten Islamic tradition of non-standard astrolabes and XIIIe) The origin of the astrolabe according to medieval Islamic sources; XIV is composed of 8 articles: XIV) Selected late Islamic astrolabes; XIVa) An astrolabe made by the Yemeni Sultan al-Ashraf; XIVb) Some astronomical instruments from medieval Syria; XIVc) A monumental astrolabe from 13th-century Damascus; XIVd) An astrolabe for the Sultan Ulugh Beg; XIVE) Two astrolabes for the Ottoman Sultan Bayazid II; XIVf) Brief remarks on astronomical instruments from Muslim India and XIVg) A universal astrolabe from 17th-century Lahore; XV) An astrolabe from medieval Spain with inscriptions in Hebrew, Arabic and Latin; XVI) The geographical data on early medieval Islamic instruments; XVII) The quatrefoil as decoration on astrolabe retes; XVIII) A checklist of Islamic astronomical instruments to *ca.* 1500, ordered chronologically by region.

With the compilation of so many papers, some new and some reprints, most of which were pre-printed under the general acronym "SATMI", used by the author since the mid 1970s to refer to a collection of unpublished papers on these subjects, and often based on the study of unedited sources, these two volumes represent a major contribution to the history of

medieval science. But the two books in fact offer much more. The list of sources and subjects they introduce is so vast that an entire generation of scholars would be required to study them in depth. David King describes this task with the aim not only of showing how much remains to be done, but also, and even more importantly, to arouse the reader's curiosity and interest. The bibliography, instruments, tables and manuscript references and so on are so huge that readers may feel lost if they have not already read some of the papers and have some acquaintance with the related information.

As the studies presented in the two volumes were not initially intended to be collected in a book, there are several repetitions and the internal cross-references are not always well accomplished. However, this slight problem is more than offset by the advantage of having all these studies together in only two volumes. This will greatly facilitate the work of the researchers in the subject.

In addition to the text, the two volumes contain a vast array of pictures, figures, diagrams, formulas, editions of Arabic texts and, last but not least, an impressive bibliography (complemented by the bibliographies in some of the studies), as well as a complete set of indexes on topics, proper names and titles, selected modern scholars, technical terms, parameters, instruments and manuscripts consulted. Volume one contains a list of comments on the studies previously

published from both volumes and volume two has two chapters devoted to this subject, one for each volume. Both volumes include a page of errata, although -inevitable in books of this kind- there are some more which have been overlooked.

Printed on high quality paper, both volumes are over a thousand pages long and are almost twice the size of a normal book. This may give an idea of their weight, which may make them rather difficult to consult. However, their interest is beyond doubt for researchers in a number of fields, not only the history of exact sciences, but also the history of cultures and religions of any society from medieval to modern times. Definitely, they will be a required reference point for all those working or interested in these fields.

Mercè Comes

Peter E. Pormann & Emily Savage-Smith, *Medieval Islamic Medicine* Edinburgh University Press, 2007

The book under review presents a study of certain aspects of the development of medicine in Islam although, as the authors state in the introduction, their aim is not to present a complete history of medieval Islamic medicine in a single volume but to concentrate on specific points and to highlight them with particular examples. Nevertheless, the study includes a consi-