Ogni volume, riccamente illustrato, contiene la bibliografia e l'indice dei nomi.

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In collecting and reprinting the works of individual authors, Variorum Reprints allow us the opportunity to reflect on their achievements and their approach. In this case the individual in question is David A. King, one of the leading authorities on the exact sciences in Islam. King must have realized something of a record by having 2 volumes in the Variorum Reprints series after a publishing history of less than 15 years. (The other volume on *Islamic Astronomical Instruments* will not concern us here). King's approach bears the unmistakable stamp of the school of Otto Neugebauer and E. S. Kennedy, but he has added a number of interesting twists of his own and has not hesitated to explore texts in Islamic science that were shunned by his predecessors. Kennedy, for example, has dealt extensively with a type of astronomical handbook containing instructions and tables called a zij, which is in a direct line going from Ptolemy's *Handy Tables* to the *Prutenic Tables*. King has also dealt with the «pure» zij but thanks to years of work with various manuscript collections in Europe, the Middle East and India he has been able to locate and identify numerous other types of tables that are not always what Kennedy has delineated as part of a normal zij. These he describes in Article II, which first appeared in *Studia Copernicana* 13 in 1975. Some of these tables are rather mundane but nevertheless interesting such a sexagesimal multiplication tables, which are further explored in Articles XIV and XV. They offer fascinating glimpses into the workaday world of the medieval Islamic scientist. Others have opened up new vistas and given us insights into Islamic science and civilization that were previously unknown or little understood. Since several Muslim rituals are astronomically determined (for example, prayer times, the direction of prayer, and the beginning of the month of fasting), it is not surprising in retrospect that King has been able to identify tables for timekeeping by the sun and stars, ones for determining the time for Muslim prayers, others for giving the direction of Mecca, tables of auxiliary functions for spherical astronomical computations, and tables for making instruments, such as the astrolabe, that could also aid in the performance of religious obligations. What is of considerable interest is the sophistication, diligence, and ingenuity with which these tables were constructed. King explores various aspects of them in Articles IX-XIII. This use of the exact
sciences in the service of religion has no real counterpart in the Latin Middle Ages and provides an intriguing insight into the way science from the ancient worlds was transformed within Islamic civilization. One of the most remarkable examples is provided by al-Khalili, a 14th century Damascene astronomer, who devised tables for timekeeping that, using auxiliary tables involving the cosine rule for spherical triangles, was able to solve the problem of keeping time by the sun and regulating the times of prayer for all latitudes (Article XI). He was also able to give a universal solution for finding the direction of Mecca, a problem also involving spherical trigonometry (Article XIII). That al-Khalili among other compilers of these tables were official timekeepers of various mosques provides us with valuable information on the social role of these scientists.

In addition King has included in this collection a number of more general articles dealing with the state of the historical work on Islamic astronomy (Article I), with mathematical astronomy in Medieval Yemen (Article IV), and with the astronomy done under Mamluk rule in late medieval Egypt and Syria (Article III). The latter, which originally appeared in *Isis* in 1983, is a marvelous summary of a generally unexplored period of Islamic science that contains numerous hints for future work. That King has spent such efforts dealing with late medieval astronomy, a period little explored but nonetheless usually dismissed as a period of decline, is a real tribute to his dogged efforts to follow his sources wherever they lead him. We are also treated to King’s trenchant wit in the two book reviews included here; it can never be said that King has ever shied away from insisting on certain standards and being willing to upbraid whomever he feels is not living up to them.

Inevitably King’s choices and taste raise fundamental questions about medieval Islamic astronomy. Are the «zij and other tables for specific purposes such as timekeeping or constructing instruments... the most important category for the historian of science» [IV, 62]? These sentiments echo the remarks of E. S. Kennedy made long ago that the zijes are «the most significant and historically rewarding subclass» of medieval astronomical literature. But this assumes a certain, far from uninteresting, view of the history of science, namely that, as King tentatively asserts [II, 55], «the compilation of extensive tables... and the development of sophisticated computational techniques, was perhaps the major contribution of the Muslim astronomers to the development of the exact sciences». For those of us interested in cosmological issues these remarks appear shocking, perhaps even scandalous. Are not the criticisms of Ptolemy in medieval Islamic astronomy equally important – perhaps more so – especially in view of the alternative models that were proposed and their connections with Copernicus? But these initial reactions should not mask an important fact, that it was this «normal» science of the zij makers that occupied a large part of Islamic astronomy. Relative importance must then be defined.