

## Oriental Astronomy and Astrology

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In the middle of the ninth century an astrologer from Balkh, Abû Ma'shar, published a series of works in Arabic in which he claimed to have recovered, from a manuscript buried by Ṭahmûrath in Işfahân, the original, divinely inspired, antediluvian astronomy from which the astronomical systems of all postdiluvian nations—Babylon, Egypt, Greece, India, and Sasanian Iran—were derived. Accompanying his mathematical astronomy was an elaborate treatment of the principles of historical astrology. In fact, Abû Ma'shar's astronomy is a mixture of the Greek *Almagest* of Ptolemy, of the Indian *Zij al-Sindhînd*, and of the Sasanian *Zij al-Shâh*, while his historical astrology is largely derived from lost Sasanian sources.

The major texts in which Abû Ma'shar propounded his weird theories, the *Zij al-hazârât* and the *Kitâb al-ulûf*, are both lost. But I have succeeded in reconstructing their main ideas from their numerous fragments and summaries in a book entitled *The Thousands of Abû Ma'shar*, which is being published this year by the Warburg Institute. The interest of these reconstructions lies not only in the peculiar and surprisingly influential theories of Abû Ma'shar but also in the insight which they give into the obscure and complex problem of Sasanian and Indian influence on early 'Abbâsîd science. The book is the beginning of a series to be authored by Professor E. S. Kennedy of the American University of Beirut and myself on the Arabic sources for our knowledge of Sasanian astronomy and astrology.

As the basic texts do not survive in Pahlavî, this is the only way in which we can attempt to understand what the Iranians knew about the stars before the Arab conquest. But a superabundance of material in Sanskrit informs us in the greatest possible detail of the history of the exact sciences in India, where they developed in successive phases of Babylonian, Greek, and Islamic influences. As a preliminary step in the investigation of this vast and still largely unexplored field I have been preparing a catalogue of the over 35,000 Sanskrit manuscripts of works on astronomy, astrology, and mathematics of

which I know. This will eventually be published with extensive notices of the authors involved and of their treatises. A first instalment, a catalogue and analysis of the numerous manuscripts of Sanskrit astronomical tables in American libraries, is to appear shortly in the *Transactions of the American Philosophical Society*. An associated venture is the editing, translating, and commenting upon important texts in Greek, Arabic, and Sanskrit. Already in press are editions of the Byzantine translation of Abû Ma'shar's *Kitâb tahâwîl sinî al-mawâlid*, of Sphujidhvaja's *Yavanajâtaka*, and of Bhojarâja's *Vidvajjanavallabha*. Several others are in an advanced stage of preparation.