

**José Luis Mancha:** *Studies in Medieval Astronomy and Optics*

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Ten articles collected in this book under three headings are, like many other volumes in Ashgate's Variorum Collected Studies Series, a collection of earlier papers published in professional journals. The result of many years of labor, *Studies in Medieval Astronomy and Optics* is like a small window opening onto that yet-to-be fully documented period of European science when it was first grappling with issues arising from its encounter with Greek science, particularly Greek astronomy and optics. By that time Muslim scientists had already dealt with a majority of the contradictions of Ptolemaic astronomy and many of their findings were available in Latin to the European scientists of the thirteenth to fifteenth century, but what exactly was known to them and how remains unclear. Some articles of this volume shed light on various links between Greek, Muslim, and European scientists. The others deal with specific problems of the European scientific tradition of that era.

There are two articles under the first heading, "Astronomy and Optics"; five under the second, "The Astronomy of Levi Ben Gerson"; and four under the third, "Arabic Astronomy in Western Texts". Mancha's interest in the specific aspects of history of science addressed in these articles is an outgrowth of his doctoral dissertation. Several articles contain original Latin text, translations, and commentaries.

Of particular interest to the history of Islamic scientific tradition is Article VIII, "Ibn al-Haytham's Homocentric Epicycles in Latin Astronomical Texts of the XIVth and Vth Centuries". The paper presents extracts from from three astronomical Latin texts of the fourteenth and the fifteenth centuries that suggest planetary models identical to those of of Ibn al-Haytham (73). Mancha's contribution to this aspect of astronomical tradition is his conclusion that the authors of the Latin texts discussed in this paper may have been the missing link between Ibn al-Haytham and Copernicus, though the evidence remains inconclusive.

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