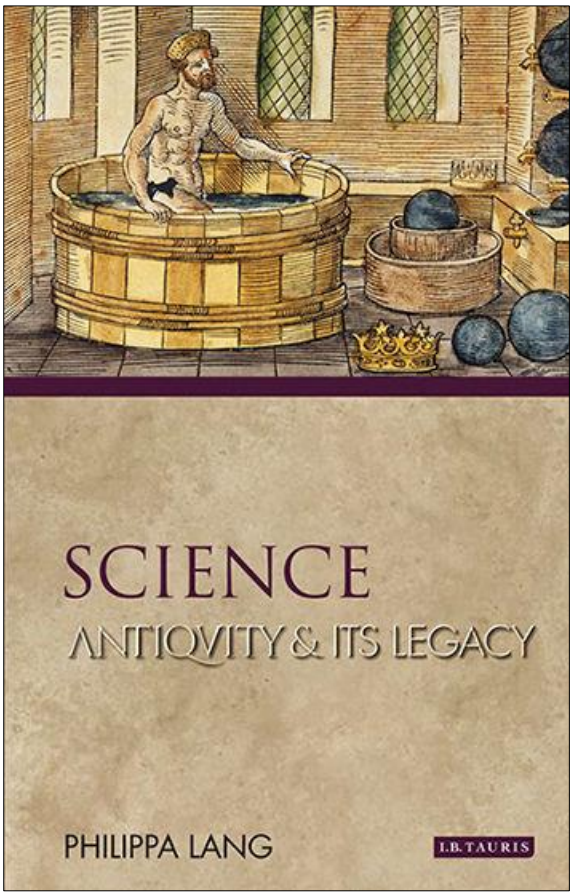
***Science: Antiquity & Its Legacy* by Philippa Lang. (I.B. Tauris, London and New York, 2016). Pp. xiv + 226. ISBN 978 1 78076 171 8 (hardback), 143 x 233 mm, US $95.**

This is part of a series of books in the Ancients and Moderns Series by I.B. Tauris. Other titles have explored such varied topics as Medicine, Gender, Slavery, War and Religion. This volume is written by Philippa Lang, who was Professor of Classics at Emory University from 2004 to 2013.

Her Masters and Doctoral dissertations both focused on medicine in the ancient world, especially Ptolemaic Egypt. That is reflected in this book, where she devotes forty pages to the topic of illness and disease.



She engages with astronomical issues in various places. One is calendar reform. After a rather perfunctory survey of the development of the Julian and Gregorian systems, she offers an important observation on Julius Caesar's reliance on advice from Sosigenes of Alexandria:

> Authority had shifted from religious authority and civic officialdom to the astronomer ... Astronomical and mathematical expertise had created a new international technocracy ... The Julian calendar marks the first moment in Western history in which astronomy superseded other kinds of expertise in defining time (and place). (p. 138).

Lang also does a fine job at relating analog computers to the ancient Greek Antikythera mechanism (which I recently saw on display in Athens). Its 32 bronze gears, and others that may have existed, were able to show the motions of the planets, the phase of the Moon and the rising/setting of certain stars. “A slide rule is an analog computer of a mechanical kind,” she explains. “The Antikythera mechanism is much more like a very complicated slide rule than a Mac or PC or a smartphone.” (p. 161). She uses the chance discovery of this mechanism to remind us of how we might either underestimate or misrepresent ancient science and technology.

The author identifies attempts to explain the motion of the planets in the sky, both eastwards and westwards, as a prime “… impetus of Greek astronomy.” (p. 182). This leads Lang into a discussion of the role of Ptolemy in the development in meteorology and astrology. She argues it “… was the movement of the planets in relation to the fixed stars …” (p. 184) that led Ptolemy to link these to weather and climate. These varying environments, in turn, partially formed a person's character. Ptolemy's version of astrology, says Lang, was a weak one. Even Ptolemy conceded many astrologers were charlatans.

Lang notes that

> It is ironic that Ptolemy, a leading and influential mathematician and theorist of the ancient world, would be hopelessly adrift in cosmology if transported into the present, but could still make a perfectly good living as an astrologer. (p. 188).

This quote offers a good idea of how this book is being pitched. Professional historians of astronomy will find nothing new here; rather, it is a very fine overview of ancient science and how modern culture can relate to it, and vice versa. It could be used as a supplementary text in an advanced high school or introductory university class, to provide an easily readable way for students to put broad scientific concepts in context.

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***The Invention of the Achromatic and Aplanatic Lens With Special Regard to the Role Played by Samuel Klingenstierna*, by N.V.E. Nordenmark and Johan Nordström. Edited by Roger C. Ceragioli; translated into English by Elisabeth Goodwin. (A Special Publication of the Antique Telescope Society: *Journal of the Antique Telescope Society*, Issues 39-40, 2016). Pp. [ii] + 142. No ISBN or ISSN (hardback), 220 x 288 mm, no price.**