

overview, capturing the associated myriad threads of the ongoing social developments in Britain and Ireland.

The topics of orientation and astronomy in stone circles and short stone rows, considered in Chapters 5 and 6, are engaging, although some ideas advocated here did not seem to be explicitly supported. Why is it uncomfortable to have “the idea of pre-planning over several years” in order for the builders of the recumbent stone circles to note the annual changes in the moon’s motions? Such behavior, if supported, might denote its importance or “specialness.”

Context, in terms of the landscape and the skyscape that surround archaeoastronomical sites, must be understood from the perspective of those who constructed ancient monuments. Addressed in Chapter 7, this topic makes most welcome reading. However, Chapters 7 and 8 highlight an urgent requirement for tying the archaeoastronomical data in with local archaeological interpretation in order to add specific social context.

The latter parts of the book aim to “examine some of the wider issues and look to the future.” However, these goals have already been largely achieved in the text at this stage, and any new points introduced here, such as those made on pages 154–155 and the discussion of equinoctial alignments, would have been better woven into previous chapters. The section “Beyond the Green and the Brown,” which discusses methodological possibilities for an encompassing and appropriate approach to archaeoastronomy, is rather out of place immediately before the closing of the work. The data provided by Ruggles in the appended reference lists will be very useful for firsthand examination and for any new research done by readers of this volume.

Many archaeologists, particularly the younger ones, today acknowledge the importance and relevance of archaeoastronomy. Ruggles’s investigative and reflective work will provide a thought-provoking summary of the field for them, for workers already contributing to the field, and for the more general student.

GAIL HIGGINBOTTOM

Liba Taub. *Ancient Meteorology.* (Sciences of Antiquity.) xiv + 271 pp., illus., bibl., index. London/New York: Routledge/Taylor & Francis Group, 2003. \$28.95 (paper).

Liba Taub’s *Ancient Meteorology* is a much-needed survey of this field; the last general book on this topic was published in 1907 and the last one in English even earlier, if one does indeed

exist. The lack of scholarly attention to this field is not indicative of its historical importance. As this book skillfully shows, meteorology, in one form or another, formed a part of the teaching and research of leading philosophical schools, such as those of the Peripatetics, Epicureans, and Stoics, was prominent in almanacs and municipal displays, and was present in a number of examples of didactic literature. While past commentators on this field have deemed ancient meteorology to be conservative and tradition bound, this book shows that the repeated attempts to give naturalistic accounts of meteorological phenomena were crucial to the desire to understand the relation between the earth and the cosmos as a whole.

This book will be of interest to specialists and is also accessible to those with only a limited knowledge of ancient science. The emphasis on genre, observational traditions, and philosophical explanation might be appropriate for introducing students to many important themes and ideas of the history of ancient science; and while specialists might not need to be reminded that didactic poetry was a common means of spreading philosophical knowledge in antiquity or that Aristotle used four kinds of causes to explain natural phenomena, they might do well to be reacquainted with less familiar texts, such as the works of Postumius Rufius Festus Avienus and the pseudo-Aristotelian *De mundo*.

This is not to say that the contents of this book are obscure. Taub shows that meteorology in antiquity, like meteorology today, was linked, and at times central, to key understandings of the earth and nature in general. Taub accurately divides ancient meteorology into two fields: the first attempted to predict the weather and the second was dedicated to explaining changes in the sublunary realm. The second field includes topics beyond atmospheric variations, including those concerning what we today would label seismic and hydrologic phenomena. For the science of prediction, Taub shows the use of observation and tradition evidenced in astro-meteorological texts and artifacts, thereby demonstrating meteorology’s relation to astronomy as well as its application to practical fields, such as agriculture, that relied on the accurate interpretation of weather signs. Major writings, including those by Hesiod, Ptolemy, Geminus, and Aratus, figure prominently in this discussion. While Taub’s attempt to describe these authors as participants in a diachronic community may not be fully convincing, the stress on the role of passing down and appropriating observations

and methods of reading signs is entirely appropriate.

Taub's treatment of Aristotle's and Hellenistic attempts to define and explain the causes of meteorological events is especially rewarding. The intractable nature of meteorological phenomena makes it a field that defies certainty. Taub deftly integrates ancient attempts at natural explanation of the seemingly random changes in the sky and under the earth with larger issues of philosophy. Two prime example are the struggles of Aristotle to give an adequate explanation that relies on material and efficient causes by using two exhalations and the naturalistic explanations of the Epicureans that were designed to reduce fear of the gods and thus help bring about a state of happiness.

Taub's work is well researched; she shows a detailed knowledge of both secondary and primary sources. This book brings clarity and unity to a field that has been unjustly ignored for nearly a century.

CRAIG MARTIN

■ Medieval & Renaissance

Béatrice Bakhouche; Frédéric Fauquier; Brigitte Pérez-Jean (Translators). *Picatrix: Un traité de magie médiéval*. Introduction and notes by **Béatrice Bakhouche, Frédéric Fauquier, and Brigitte Pérez-Jean**. (Miroir du Moyen Age.) 386 pp., bibl. Turnhout, Belgium: Brepols Publishers, 2003. €37.91 (paper).

It is not an easy task for classical philologists to translate into a modern language the Latin version of this vast compilation of astral magic, attributed to "Picatrix"—possibly a distortion of the Castilian *picatriz*, thought to be a translation of the Arab nickname *Maslama*, the root three letters of which, *m-s-l*, may mean "to pick like a serpent." In fact, this treatise, composed in Arabic in al-Andalus in the mid-eleventh century, was translated into Castilian, and then immediately from Castilian into Latin, at the end of the 1250s, in a Toledo that had passed into Christian hands. To use the language of Cicero, its third linguistic state does not show great respect for the Latinity in vogue when Rome thought itself *caput mundi*.

By training and through their own teaching Béatrice Bakhouche, Frédéric Fauquier, and Brigitte Pérez-Jean are familiar with a form of classical antiquity that has been somewhat idealized by the humanist tradition. They are less familiar with the Arab-Latin Middle Ages and the particular vision that its clerics had of antiquity and of

its continuation during the Islamic period, a time of remarkable cultural interaction. The three translators recognize the gulf that separates their own cultural tradition from that to which *Picatrix* belongs. They devote five of the thirty-eight pages of their introduction to particulars of the Latin text and its complex relationship to the Arabic original. But once they have covered these preliminary matters, they allow classicizing reflexes to take over. To illuminate the numerous technical astrological terms with which *Picatrix* is replete, they rely on the famous *Astrologie grecque* of Auguste Bouché-Leclercq (Paris, 1899). They never refer to the treatises of Ab Masar (ninth century) or of al-Qabîsî (tenth century), which in fact enjoyed enormous prestige throughout the Arab Middle Ages and in the Latin West as a result of translations made in the twelfth century. The Latin *Picatrix* belongs much more to this great wave of translation than to Marcus Manilius and his *Astronomica* (first century B.C.E.) or to Firmicus Maternus and his *Mathesis* (fourth century). Bouché-Leclercq was a knowledgeable historian who carefully focused his research. He tried to trace "a clear line of demarcation between Greek and Arab astrology" (*Astrologie grecque*, p. xvii). Not used to consulting Arab-Latin astrological treatises or manuals of astronomy from the medieval university, such as *The Sphere* of John of Sacrobosco and Gerard's *Planetary Theories*, Bakhouche, Fauquier, and Pérez-Jean commit mistakes of translation when the text of *Picatrix* becomes rather technical in moving away from classical Latin. I provide here a few examples of such mistakes.

They translate "*equacio planetarum*" (1.4.1 and 2.12.39) by "*les rapports*" or "*la relation des planètes*," when in both cases the issue is about making calculations from numerical information provided by astronomical tables to find the longitude of planets at any given moment. They see in "*circumferencia celi*" (1.3.13) "*la voûte céleste*"—namely, a spherical vault—when it refers rather to the heavenly circle and, more specifically in this context, to the elliptic. They understand "*quadratura*" (of the moon; 2.3.1) as "*quartier*" and translate "*prima quadratura*" as "*le premier quartier*"—in a pinch, possible—but "*secunda quadratura*" as "*le deuxième quartier*"—impossible, since they are forced to observe in a note, "c'est-à-dire le dernier quartier." In fact, the equivalent of the Latin word is "*la quadrature*." It designates the two angles of 90 degrees of longitude that the two heavenly bodies (here, the sun and the moon) form successively in the course of their synodic