

Book Reviews

treated enlargement of the prostate. He also claims he has shown how they treated atherosclerosis based on the evidence of the discovery of ajoene and alliinase in fresh garlic. It appears from this that he is reaching conclusions on specific therapies of early physicians by means of the discoveries of modern pharmacology. Some notice should be taken of the evidence suggesting that drugs were not used as specifics but as palliatives, treating symptoms common to a number of illnesses.

The challenges to modern research on ancient pharmaceuticals are briefly discussed in the chapter on the medieval and Renaissance periods making the obvious point that much depends upon the exactness of the translation of the text. The author, Ann van Arsdall of the Department of English, University of New Mexico, complains of modern bias in the assessment of past remedies and observes that no one appears to have studied whether there is any scientific basis for the long life of *Theriaca* (Venetian Treacle, Mithridatum, etc.). The suggestion that pharmacologists should investigate messy polypharmaceutical concoctions of this kind is carrying Holland's proposal to an extreme.

Elizabeth R Macgill gives a twelve-page extract of her edition of *This booke of soveraigne medicines* (c. 1570) for the benefit of the scientist who "has not had an opportunity to read primary sources in this area". Regrettably it does very little towards the elucidation of the underlying problems involved in the investigation of early medical texts. By way of contrast, James Reveal's chapter 'What's in a name: identifying plants in pre-Linnaean botanical literature' is a thorough and fully documented study of the first requirement of a pharmacological investigation, the identification of the medicinal plant. The chapter surveys the primary and secondary botanical literature, the location of herbaria and modern aids to identification.

The book ends with two chapters for the information of historians. The first deals with research and development under the title 'From

plant lore to pharmacy' and the second refers to clinical trials. Reading these two very brief expositions confirms the opinion that, with the exception of Reveal's chapter, the contents of the book do not do justice to the proposal put forward in the introduction.

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Ann Jeffers, *Magic and divination in ancient Palestine and Syria*, Studies in the History and Culture of the Ancient Near East, vol. 8, Leiden and New York, E J Brill, 1996, pp. xviii, 277, Nlg 146.00, \$94.50 (90-04-10513-1).

This study of magic and divination in the ancient Near East focuses upon the communities of northwest Syria and is based primarily upon Old Testament, Ugaritic, Phoenician, and other Semitic sources, dating from the seventeenth to the eighth century BC. For medical historians, the magical and divinatory practices are avenues by which we can learn of early approaches to the maintenance of health and the reaction to disease and calamity, and it can be argued that in late antique and medieval society a larger proportion of the population probably used divination and magic than more "rational" Greek humoral medicine. In earlier centuries there were few options available for someone wishing to learn the prognosis and diagnosis of mental and physical illnesses, or to determine the well-being of someone who was absent, or to assure themselves of protection and good health. Divination was closely associated with medical prognosis, and makers of talismans were approached with problems ranging from illness to famine. The boundary between mantic practitioners, with associated magical practices, and doctors healing through food and drugs was very indistinct.

There have been numerous attempts by various historians and ethnographers to define what is meant by magic and divination, none of them entirely satisfactory or universally accepted. In general terms, however, divination

is the prediction of future events or gaining information about things unseen, while magic is an invocation of a supernatural force to bring about changes in the course of events. As Jeffers and others have argued, magic can be viewed as a form of rationality with its own set of assumptions, based upon a process of analogy rather than proven causes and effects.

The author begins by discussing the linguistic roots for northwest Semitic terms designating conjurers, spellbinders, seers, diviners, interpreters of dreams, and similar functions. Her translations and analysis of these terms illustrate the blurred boundaries between the various functions, the difficulty of precise translation into English, and the fragility of our sources regarding their meaning.

The latter half of the volume is devoted to divinatory and magical techniques and devices detectable in the early texts. At this very early period, the magical and divinatory methods were apparently not as elaborate, nor the magical equipment as highly developed, as many that flourished in later centuries. The nature and details of the techniques and equipment are distressingly elusive in the fragmentary documents for this period. An "ark", for example, in some contexts is part of a divinatory act and in others is capable of bringing diseases, but the nature and function of the "ark" itself is unclear. The precise nature of *Urim* and *Thummin*, apparently used in a type of lot casting, has long eluded scholars.

In the ancient harbour city of Ugarit located in north Syria, at the site known today by the Arabic name Rās Shamra, documents were discovered dating between the fourteenth and twelfth centuries BC, and on the basis of these Ugaritic texts Jeffers argues that astrology (in the general sense of reading omens in celestial phenomena) was not introduced to Israel by the Assyrians, the Babylonians, or the Hellenists, but that it was widely spread and practised at an earlier time. Traces of liver divination (hepatoscopy) are also detectable in ancient Syro-Palestine, and in one Ugaritic text it is associated with the observation of celestial phenomena. There is clear evidence for belief

in the magical and purifying properties of water, though very little evidence for divination by means of water. There does seem to be evidence that necromancy (divination by communication with the dead) was practised in northwest Syria at this early period, though the argument given by Jeffers to the effect that it was not mentioned in the book of *Exodus* because "it was so commonly practised . . . there was no reason for prohibiting it" (p. 168) could be turned upside down, for if something is not mentioned in a legal context it is often because there is no need to prohibit something that is not practised. There was also some form of divination by arrows, but what that may or may not have meant is unclear, though Jeffers presents a good exposition of the possible interpretations. The interpretation of dreams, both as simple messages and in a larger symbolic sense, appears to have been commonly practised. Interestingly, and inexplicably, there is no mention of the evil eye which came to play such an important role throughout the pre-Islamic Middle East and continued to do so in Islamic lands.

For those interested in magical and divinatory approaches to disease and misfortune, there is much to be gleaned from this volume. The first appendix, 'The magical elements in the treatment of diseases', provides a summary of evidence regarding beliefs in the causes of disease and their ability to be transferred, as well as treated, through magical means. Other relevant uses of magic and divination are scattered throughout the volume, but the lack of a subject index makes it difficult to search for a particular topic or practice. The volume, prepared as a doctoral dissertation at University College Dublin, is addressed to linguists and historians of the ancient Near East, and consequently the material is not easily accessible to those coming from other areas of expertise. There is an 'index of authors' (that is to say, modern scholars whose views are cited) and indices of biblical passages and Ugaritic, Phoenician, and Aramaic texts. Numerous items are referred to in the footnotes without a corresponding entry in the bibliography; for example, p. 156 note

62 reads “Cooke (1936)”, and p. 230 note 1 reads “Harrison (1982–1976)”, but neither is to be found in the bibliography. In one instance (p. 47 notes 93 and 94) the footnotes are incomplete. Despite these shortcomings in the published volume, the author has in this study not only catalogued terms and texts relating to divination and magic from the ancient northwest Semitic world but also interpreted them within the context of what we know of the society and general world-view at that time and place. The practices that are to be seen emerging in this particular area of the ancient Near East are fundamental to our understanding of the role and practice of magic and divination to later centuries when they came to be viewed as competitors to more “rational” approaches to the maintenance of health.

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G E R Lloyd, *Adversaries and authorities: investigations into ancient Greek and Chinese science*, Ideas in Context Series, Cambridge University Press, 1996, pp. xvii, 250, £40, \$54.95 (hardback 0-521-55331-8); £14.95, \$19.95 (paperback 0-521-55695-3).

The collection of essays brought together here represents Lloyd’s “preliminary forays” into the field of comparative studies of the development of science in China and Greece between 300 BC and 200 AD. The conclusions may be speculative and tentative, but Lloyd makes a highly persuasive case for the *necessity* of studying the two areas together, in order to counter any assumption by specialists in either subject that there is something inevitable in the way that that culture “did” science. In the process, he argues for a level of comparison which moves well beyond simply identifying a concept, such as Greek “humoral theory”, then looking for a single equivalent in Chinese culture. Even where the two cultures may have studied the same things, they did so

out of different interests, asking different questions. In using each to test conjectures about the other, Lloyd investigates such topics as the claims of science, the uses of methodology and epistemology in persuasion, and the concepts of cause and of the infinite.

Throughout the book, Lloyd emphasizes the agonistic, confrontational character of Greek science. However, he resists setting this up against an opposed Chinese “irenic” science, always aiming at consensus, and instead looks at the style and social context of intellectual exchanges in both cultures. Because Greek scientists needed to attract followers—and paying pupils—they needed to create a climate of rivalry, to counter claims made by others, and to show that they were the best on offer. Individuals could move freely from group to group, in contrast with Chinese scientists who had a lifelong commitment to one group. Greeks asked what the underlying units of everything were—and produced so many conflicting answers—because in the competitive context in which science operated each individual needed to produce his own theory and show it was better than those of the competitors. One way of doing that was to start with explaining the basic constituents of the universe, from which everything else would then follow.

Lloyd insists that we need to move beyond any apparent similarities or differences between the styles of science in the two cultures to ask why these were present. The “why” relates to the audience which scientists needed to persuade. In China, the audience was the ruler. Particularly in the Han period, the ruler insisted on a single orthodoxy; as the guarantor of harmony between heavens and earth, he supported the synthesis of yin/yang and the five phases. Studying the heavens and ensuring an accurate calendar were concerns of the Chinese ruler, but not of the fiercely autonomous Greek city state; Greek scientists’ insistence on the superiority of theory over practice can be seen as a necessity rather than a real choice because, regardless of the political system under which they lived, they had little chance of influencing their rulers.