consideration): 'la decadenza della Magna Grecia, evidente nel momento dell' incontro con Roma, è interpretata soprattutto in chiave moralistica' (p. 65). And thanks to Scarpi we can now tease out for the Antenor of the ps.-Apollodorus *Epitome* some very incidental allusion, and at least feel able to seek a reason why this should be the case: a question not likely to occur to us in a reading of this source for its own sake.

One is tempted to ask for more, and to wish that the project might be extended to include Thucycides' treatment of the Sicilian expedition, the use of Sicilian themes in (say) the Second Sophistic, the treatment of Sybaris in Athenaeus, or Petronius' Croton, much more interesting than either of the Greek novelists' treatment of Sicily for its scathing portrayal of a decaying town where only *captatores* flourish. Another desideratum would be a general survey of how Sicily fares in literature either in general or in literary stereotype. One feels that the number and variety of papers was just too short to make any kind of concluding chapter possible. That said, there is no denying the usefulness of the assembled materials and the very considerable industry of the authors, not least in matters of preliminary exposition and bibliography.

The proofreading of foreign quotations and foreign titles could have been considerably improved, but otherwise the volume is attractively produced.

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GREEK AND CHINESE SCIENCE

G. Lloyd, N. Sivin: *The Way and the Word. Science and Medicine in Early China and Greece*. Pp. xx + 348. New Haven and London: Yale University Press, 2002. Cased, £25. ISBN: 0-300-09297-0.

What can we learn about Greek science from a comparison to Chinese science, and reciprocally about Chinese science from the Greek comparison? Serious comparison between two civilizations requires professional competence in both fields, and this can rarely be found in a single individual. *The Way and the Word* presents the ideal solution. Here is a joint work by two outstanding experts, Geoffrey Lloyd for ancient Greece and Nathan Sivin for China, each with a substantial knowledge of the other's field. In this book L. & S. bring together the results of eleven years of collaboration.

The project is ambitious in many respects. The topic cover six centuries, from roughly 400 B.C. to 200 A.D. The conception of science is very broad, including not only medicine and mathematics, but also cosmology and philosophy (and for China, divination as well). The focus is equally divided between intellectual content and the social framework of inquiry. The authors describe their subject of study as a social and institutional 'manifold', the point of intersection between social and intellectual history. 'We look at ideas, their uses, the social interactions that elaborated them, and their adaptation to state power as dimensions of a single phenomenon' (p. 9). Thus Chapters 2 and 3 are devoted to the social context of Chinese and Greek science, respectively, Chapters 4 and 5 to the intellectual development of the two traditions. Comparisons, in view throughout, are summarized in a brief Chapter 6.

For a Hellenist reader, the chapters on China are particularly fascinating because the material is so unfamiliar. We learn a great deal about the social conditions of Chinese intellectuals, their origin in the literate, well-born élite of 'gentlemen' (*shih*), the descendents of aristocratic clans, their livelihood as state officials, and their

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dependence on Imperial favor. This aristocratic social background is reflected in their tendency to see all wisdom as perfected in the earliest classics and transmitted to later ages, more or less successfully, through scholarly lineages. By contrast, the Greeks appear as fierce individualists, each one aiming at originality, defining his position by polemic with his rivals and (except for the Epicureans) only loosely bound by the teachings of a school. Of course, over a stretch of six centuries there are also major differences within each tradition—differences between periods as well as between schools. Thus in the early Chinese period of the Warring States (before 250 B.C.), individual monarchs assembled famous intellectuals as 'guests', much as the Greek tyrants attracted poets and philosophers to their court. This pluralism of patronage gave way in the Han empire to a unified system in which astronomers and theorists became salaried officials in the imperial bureaucracy. There is no real parallel in Greece, or even in the Roman empire, to this centralized state support of (and hence profound influence on) scientific inquiry in classical China.

Only in late antiquity did Greek thinkers come to assume that complete wisdom had been available in the remote past, *in prisca sapientia*, but gradually obscured by the disorder and decline of more recent times. This is the standard view in ancient China, where even for medicine or astronomy some prehistoric ruler such as the Yellow Emperor was held to be the source of a full revelation, transmitted in an enigmatic classic text, which had to be faithfully preserved and skillfully interpreted. In such a bookish culture it is amazing to learn that there were, for many centuries, no books in the proper sense. The early texts were inscribed on strips of wood, each holding one line of text, bound together with cords. 'Large bundles were so unwieldy that the practical limit [for a single work] amounted to hardly more than ten pages of modern print' (p. 71). When the cords rotted from long storage, there was a problem of recovering the original order of the strips. It is easy to imagine the challenge and opportunity facing later editors, easy also to comprehend the importance of memorization for the study of classic texts.

The political context of Chinese scholarship is strongly reflected in its theoretic content. In the classic period of the Han dynasty (206 B.C. to 221 A.D.) the standard world view includes a complex macrocosm–microcosm pattern with the emperor at the center, preserving the harmony between three levels: the heavens, the state and the human body. The astronomers are responsible for observing and predicting celestial events that might warn or threaten the ruler, whose position is established by a Mandate of Heaven, which he must preserve by a ritual correctness attuned to the heavenly cycles. Health in the body is dependent on the same powers that account for security in society and order in the heavens. Each level is interpreted in terms of the universal life-force or vital matter *ch'i*, acted on by contrasting, complementary principles (*yin* and *yang*), and analyzed into various fivefold systems of 'phases', previously translated anachronistically as five elements (pp. 196–200). Despite a partial Greek parallel in macrocosm–microcosm speculation, the authors convincingly show that there is no real correspondence between these Chinese concepts and the fundamental ideas in Greek theories of nature. (Rough comparisons to the Chinese notion of *ch'i* are suggested for *pneuma* and *sympatheia* in Stoic cosmology, where the same concepts are 'simultaneously material and vital', p. 150; cf. p. 183.)

In the Greek chapters the material is more familiar, but the comparative viewpoint brings out many aspects that might not otherwise be noticed: for example, the almost total lack of institutional support in Greece for scientific research (pp. 101–2). Thus calendar reform in China might serve to prepare a major annual ceremony in which the emperor presented the new calendar to the people of the realm (pp. 38–9, 190). By

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contrast, in Greece even astronomical work on the calendar received little or no political attention. There is no Greek or even Roman parallel to the technical bureaucracy of the Chinese empire, headed by a court official named the Grand Scribe (p. 26). Corresponding to this lack of state support (and control) is the freedom of the individual not only to pursue a scientific career but also to compete with rival individuals for recognition and influence. The authors emphasize the competitive and adversarial tendencies in Greek scientific writing, reflecting the confrontational form of public debates. This fundamental insight is not new. In his *Griechische Kulturgeschichte* (begun in 1880), Jacob Burckhardt described Greek culture as fundamentally 'agonistic'; and it is significant that the Olympic games are still known by their Greek provenience. It is not then altogether surprising that in Greece science and philosophy should be as competitive as sports. What is new here is the detailed demonstration, for example, that the competitive features in Aristotle's account of rhetoric and dialectic can be confirmed at length from treatises in the Hippocratic Corpus (pp. 120–7). Even the austere deductive method of Euclid's geometry is seen here as reflecting rhetoric and dialectic in the background 'as negative models'. In the quest for certainty, mathematics eschews all personal and rhetorical elements in order 'to maximize the claims to incontrovertibility' (p. 153).

L.'s masterful survey of Greek ideas on nature, elements, and causes pursues the theme that 'the very adversariality of Greek modes of inquiry' affects the content of theoretical speculation (pp. 128, 136). More specifically, 'the way Greek philosophers and scientists formulated their focal problems reflected their perception of what would secure victory in their competition' (p. 155). Thus those who invoked the concept of nature 'did so in a bid to defeat their rivals' in a competition for prestige and 'sometimes also to secure a livelihood' (p. 148). This model of rivals competing for the position of Master of Truth can certainly shed some light on the polemic of a Hippocratic doctor against superstitious healers and purification priests, or on the larger quarrel between philosophers and poets going back to the attacks on Homer and Hesiod by Xenophanes and Heraclitus. The competitive model fits perfectly the boxing match set-up between two claimants to wisdom in Plato's *Protagoras*. But it is more doubtful how far this kind of rivalry can account for doctrinal differences between Socrates and his interlocutors on the subject of virtue, or between Aristotle and the atomists on the subject of nature. L.'s emphasis on the explanatory value of the competitive model tends to deflect attention from the scientific program as such. In what sense is Anaxagoras' interest in causal explanation accounted for by his desire to be recognized as a *maître de vérité*? The sociological factors detailed in this book succeed in explaining why Greek and Chinese sciences 'took the form they did' (p. 9) only in the sense of explaining why they differ from one another. The internal content of a scientific tradition calls for a different kind of explanation.

There is no place in a short review for discussion of particular points in L.'s encyclopedic coverage of both form and content in Greek science and philosophy. Aside from the reservations just mentioned concerning the cynical implications of L.'s unrestricted use of the competitive model, I offer only one critical reflection. This concerns the implicit relativism presupposed here for an equal treatment of Greek and Chinese science, an egalitarianism that systematically avoids any suggestion that the Greek enterprise was somehow more scientific, or the direct ancestor of modern science. Probably the methodology of cultural relativism was needed to avoid anachronism or condescension in the treatment of the Chinese material. But such emphasis on the relativity of cultural conditions occasionally leads to the extreme view that 'in the fullest modern sense there was no science at all before 1800 or so' (p. 4),

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implying that Galileo and Newton were not scientists in the fullest modern sense. It is presumably to avoid any suggestion of intellectual superiority for Greek science that no mention is made of the fact that Greek astronomers had worked, since the sixth century B.C., with a geometric model of the heavens that permitted them to explain eclipses, whereas the Chinese did not. Similarly, there is little reference here to the importance for the history of science, as well as philosophy, of the fact that the Greeks constructed mathematical knowledge around the notion of proof. Such points on which the Greek did serve as pioneers for modern scientific thought are inevitably ignored or underemphasized in the interests of cultural parity. Thus continuities between the ancient conceptions of element and nature and the corresponding modern conceptions are ignored or implicitly denied. Of course the meaning of 'nature' has changed over the centuries, and even today there is no general agreement on what it means to be a naturalist in philosophy. But there is a clear connection between the classical meaning of *physis* and the fact that Ionian cosmologists were offering naturalistic (if incorrect) accounts of eclipse and lightning-flash from the sixth century on. The fact that Chinese had no word meaning 'nature' until modern times (p. 200) is of more than philological interest.

Despite such misgivings on the part of a lover of things Greek, the methodological assumption of cultural egalitarianism was probably required for good comparative work. The result is an immensely informative and stimulating book. Specialists and general readers alike may be grateful to L. & S. for making so much learning and so many insights so available to all.

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MEDICAL PRACTICES

F. GAIDE, F. BIVILLE (edd.): *Manus medica. Actions et gestes de l'officiant dans les textes médicaux latins. Questions de thérapeutique et de lexique. Actes du Colloque tenu à l'Université Lumière—Lyon II, les 18 et 19 septembre 2001*. Pp. 272. Aix-en-Provence: Publications de l'Université de Provence, 2003. Paper, €24. ISBN: 2-85399-549-6.

This volume contains the papers presented at a colloquium on Roman medicine held at Lyon on 18–19 September 2001. The seventeen contributions are preceded by a short introduction by the two editors.

As the subtitle indicates, two main themes were dealt with in this colloquium: (i) the gestures and rites performed by the physicians; and (ii) the language used to describe these actions. Five of the articles discuss more general issues and are collected in Part I ('Études "transversales" ': Biville, Langslow, Gaide, Gourevitch, and Gaillard-Seux), whereas the twelve remaining articles, which deal more specifically with particular texts and authors, are found in Part II ('Études privilégiant un auteur ou un corpus homogène'). Of the four last papers, one is not on human but on veterinary medicine (Gitton-Ripoll), two are on Greek medical texts rather than on Latin (Boehm and Luccioni), and one discusses the descriptions of medical practice in non-medical Roman texts (Vallat).

One of the themes discussed in this book regards the ritual and magical actions

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