

This is an important collection of documents from one of the most interesting locations in the Fayum. The documents are presented impeccably, the commentaries are admirable in both their detail and accuracy, and the introductions are exemplary. J. is to be warmly commended for her volume, which is an example to all of how papyrological volumes should be produced.

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A. JONES (ed.): *Astronomical Papyri from Oxyrhynchus, Vols 1 and 2*. Pp. xiv + 368, 471, pls. Philadelphia: American Philosophical Society, 1999. Cased. ISBN: 0-87169-233-3.

Ever since the appearance of P. Oxy. LXI in 1995, readers of the Oxyrhynchus Papyri have known that a major publication of astronomical texts was to appear separately, for in that volume the numbers 4133–300 were set aside for a body of texts listed, but not published, at that time. This book contains their full publication; including twenty-five texts added since 1994 (numbered with an *a* after the number), they total some 193. As Jones points out, these more than double the number of published astronomical papyri (and no doubt cause astronomical papyri to be proportionately more overrepresented in P. Oxy. than any genre except perhaps lyric poetry!).

This book was conceived of as two volumes, but the publishers apparently decided to bind them as a whole, resulting in a single volume called 'Volumes 1–2'. 'Volume 1' contains an extensive introduction, followed by the commentaries on the texts and a dozen appendices, plus abbreviations and an index of subjects. 'Volume 2' contains the texts and translations (facing each other), and indexes to the Greek texts, as well as the plates. It would be logical to suppose that originally it was intended that one could have the texts and commentaries open simultaneously; that is now impossible, and constant turning back and forth is consequently necessary. In a single-volume publication, the traditional unification of text, translation, and commentary in a single place would have served the reader better, but presumably the decision to bind the volumes together was taken at a very late stage.

'Astronomy' here refers principally to the science of determining the positions of the sun, moon, and planets with respect to the constellations of the zodiac at particular points in time. That is, these texts are primarily 'predictive', a term J. uses with the caveat that in fact most of the time the computation was retrospective. Predictive astronomy was essentially a practical science in the service of astrology, and the large body of horoscopes (i.e. statements of planetary position at the time and place of the birth of a particular individual) published here and elsewhere is testimony to the main use of the more generalized astronomical knowledge.

The papyri themselves are grouped into five sections. In 4133–47 we have a small group of 'theoretical and instructional texts', of which the highlight is the first item, attributed by the editor to the pre-Ptolemaic (that is, before Claudius Ptolemy) astronomer Menelaus of Alexandria. The second section includes the primary tables, on the basis of which more specific ones could be computed; the third section has ephemerides and almanacs (respectively positions of the bodies on a daily basis and otherwise); the fourth, miscellaneous tables; and the fifth (and longest), the horoscopes (4236–300a). Many of the papyri are mere scraps, and it is a tribute to the extraordinary technical expertise that J. has acquired that he has been able to draw substance from them.

The introduction, apart from a preface (1), is divided into eight sections: (2) purpose and provenance of the papyri; (3) astronomical and astrological concepts; (4) calendars and chronological data; (5) concepts and methods of Greek predictive astronomy; (6) varieties of astronomical papyri; (7) methods of analysis and dating; (8) documentary aspects; and (9) editorial principles. J. proceeds systematically and writes with great clarity. It is certainly not his fault if this astronomically challenged reader found it difficult going at times in Section 5. Perhaps the single most important point from the point of view of ancient science is that Ptolemaic 'kinematic' methods of determining planetary positions had to share the stage with another, arithmetical method, which derives from Babylonian science and which is known mainly from the papyri. Taken with J.'s article 'Astrologers of Oxyrhynchus' (forthcoming in *Oxyrhynchus: A City and its Texts*), this introduction is now the place to start for anyone interested in the principles and practice of astronomy (and astrology) in the Roman world.

About the horoscopes, J. has much less to say, mainly because previous work has dealt with most of the crucial issues. He does note the almost exclusively male gender of the persons for

whom horoscopes are known to have been drawn up. He also gives useful charts of the chronological distribution of the texts, showing that the horoscopes follow the bulk of the Oxyrhynchus papyri in their distribution up till late antiquity; unlike with the documents, there is no sixth-century recovery in astrology after the vacancy of the fifth century.

It is hardly possible in a few words to do justice to the wealth of material in this book. The work as a whole is a remarkable contribution to scholarship, worthy of the high standards for this field set by the great Otto Neugebauer.

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A. SANTOSUOSSO: *Soldiers, Citizens and the Symbols of War: from Classical Greece to Republican Rome, 500–167 BC*. Pp. X + 277. Oxford: Westview Press, 1997. Cased, £50 (Paper, £14.50). ISBN: 0-8133-3276-1 (0-8133-3277-X pbk).

S. has aimed this book at students, general readers, and classicists. Its intended appeal for the latter is a synthesis of the mechanics of the battlefield, social and political history, and the symbolism of war (p. ix).

It is not comprehensive. It concentrates on the Persian Wars (pp. 24–81), Alexander (pp. 110–47), and Rome against the Antigonids and Hannibal (pp. 150–200). Even within these periods coverage is selective. The battles of Artemisium and Mycale are dismissed in five lines each (pp. 50, 70). Outside its favoured periods coverage is very patchy. War between Hellenistic monarchies occupies just three pages (pp. 148–50). Chapter IV (pp. 82–109), which links the Persian Wars and Alexander, is the weakest of the six and contains numerous problems. S. retrojects fourth-century anti-democratic views about the malign influence of the navy as the fifth-century Athenian norm (pp. 82–4). He takes Sparta to be a typical hoplite state and, apparently misled by the Spartan 'invention of tradition' and the outsider's 'Spartan mirage' of an unchanging polity, gives no attention to changes in the Spartan army (pp. 84–8). S. claims Greek mercenaries were motivated only by money (pp. 88–92): a view at odds with the speeches addressed to them in Xenophon's *Anabasis* (e.g. 1.3). He oddly claims that Plataea 'brought four decades of peace to the Greek states' (p. 89).

There is little that seems new here for the classicist. As an historian of Renaissance and modern Italy (p. ix) S. inevitably mainly relies on secondary material. Various modern views, with which not all would agree, are wheeled out as facts. Macedonian *phalangites* had lighter kit and were more effective than hoplites (pp. 112–13). In the last two centuries B.C. recruitment into the Roman army was at the deliberate choice of the individual (p. 151). S.'s use of sources looks unsophisticated at times. An argument put in a speech of the Corinthians is the real opinion of Thucydides (p. 74: Thuc. 1.69.5). All of Livy's story (8.6–8) of a general executing his son in 340 B.C. is reliable (p. 157).

S. brings the mechanics of the battlefield, social and political history, and the symbolism of war together between the covers of this book, but does not always relate them in a meaningful way. For example, he sees that one of the greatest effects of the Persian Wars was cultural change: the creation of the free West and servile East dichotomy (pp. 74–81). But he does not discuss how this cultural construct might affect what our Greek sources tell us about the wars and thus our understanding of them. Aeschylus' spear-armed Greeks and bow-armed Persians (e.g. *Pers.* 239–40) are not straight reportage but carry an ideological charge which underpins both Greek and modern ideas about the distinctiveness and effectiveness of Greek hoplites compared with other types of ancient infantry.

The work has various strengths. It is well written, well produced, and has good maps. For its areas of focus it can be recommended to non-specialists. Its lack, however, of any visual element means that beginners should be encouraged to read it in tandem with one of the popular books on ancient war which do not neglect this area: such as J. Warry, *Warfare in the Classical World* (London, 1980); P. Connolly, *Greece and Rome at War* (London, 1981); or S. Hackett (ed.), *Warfare in the Ancient World* (New York, 1989). The best introduction to the social history of Greek and Roman war is to be found now in the relevant chapters of K. Raafaub and N. Rosenstein (edd.), *War and Society in the Ancient and Medieval Worlds* (Cambridge, Mass., 1999).

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