throughout its history, a corrective notion for those classicists who tend to heighten triumphantly the contrasts between Hellenic rationalism and Egyptian superstition. Attempts to somatize too locally Egyptian anatomical concepts, they contend, are misguided. Here traditional Chinese medicine might have offered a parallel. Its historians have long recognized that anatomic terms like liver, stomach, and triple heater are connotative as well as denotative, and often refer not to somatic structures, as in western biomedicine, but to functions. Again, a bibliographical slip—no mention of James H. Walker's controversial but fundamental *Studies in Ancient Egyptian Anatomical Terminology* (Warminster, 1996).

The section on Greek medicine's debt to Egyptian assembles the usual ambiguous evidence. The argument that the Cnidian notion of *perittoma*, putrefactive intestinal residue as a morbid principle, derives from the Egyptian concept of *whdw* is frankly tired. Ideas of intestinal stasis and autointoxication appear in other cultures and times (e.g. late nineteenth-century American) and raise doubts about diffusionism. That the Egyptians adopted a fluvial physiology with its *metu* 'channels' by analogy with the Nile is a plausible suggestion. The authors' focus on 'blockage', however, suppresses the rest of the metaphor, obvious to an Egyptian, namely, 'overflow'.

University of Notre Dame DAVID J. LADOUCEUR

WINTER IN THE ANCIENT WORLD

R. RATHMAYR: *Der antike Mensch in der Jahreszeit des Winters*. Pp. 302. Hamburg: Dr Kovač, 2000. Paper, €75.67. ISBN: 3-8300-0393-5.

The study of the seasons in antiquity offers an untapped opportunity for students of environmental and ecological history or historical geography. Rathmayr's treatment of winter provides only a partial view of the subject by focusing upon a single season and by limiting the discussion to literary evidence. The approach is predominantly descriptive rather than analytical and subject to the usual constraints of employing only the surviving sources (p. 218). The chronological scope of the study extends from Homer to the Church fathers. Geographically, the discussion reaches such remote locales as India and Scandinavia, for which in the majority of cases the ancient authors had to rely upon indirect evidence. Detailed source criticism and contextualization remain rare throughout the work, but the incidental nature of many references assures that literary affectation was the exception rather than the rule (p. 241).

The first section examines ancient philosophical theories for the causation of the seasons. R. describes the development from several competing explanations toward the consensus view that the proximity of the sun determined the cycle of the seasons. After the fourth century B.C., only the alternative theory attributed to Posidonius survives in several sources, hypothesizing that the seasons were caused by the changing angle of incidence of sunlight. The movement of the sun between the tropics also fostered a common belief among ancient geographers that the Earth had two habitable temperate regions, separated by a band of intense heat around the equator and bordered by extremely cold zones. For most people in antiquity, the beginning and end of winter were marked by observable natural phenomena rather than precise calendrical boundaries. In his listing of significant signs, R. includes the setting of the Pleiades, the appearance of Arcturus, the blowing of the west wind, and seasonal shifts in flora and fauna (p. 58). The remaining portion of this section describes the regional

© The Classical Association, 2003

https://doi.org/10.1093/cr/53.1.194 Published online by Cambridge University Press

specifics of winter weather throughout the Greco-Roman world and helpfully provides modern data for the sake of comparison.

R. proceeds to focus on the issues of sea travel and military activity during winter in two separate chapters. The evidence for seaborne travel and trade during the winter months remains contradictory. R. argues that such voyages were deemed dangerous and only undertaken out of either dire need or for the purpose of significant economic gain. As a result, sea travel typically halted during the period from November to March, with the exception of the perennial trade between Rhodes and Egypt, and the winter monsoon route in the Indian Ocean. This raises the possibility that other, less-well-documented routes were also subject to their own seasonal dynamics. Military activity was also considered to be difficult during the winter months but on occasion was undertaken to gain the element of surprise. The gradual professionalization of the army in the Roman period marked a transition away from seasonal warfare, although such issues as logistics, winter quarters, and maintaining morale remained significant concerns during the winter. Only siege operations were on occasion deemed to benefit from winter weather.

In the final section, R. examines the impact of winter upon a wide range of everyday activities, including agriculture, fishing, hunting, trade, clothing, and housing. The idyllic image of the farmer resting throughout the winter that appears in certain sources is contrasted with more realistic evidence of the hardships of subsistence farming in antiquity. Hunting, fishing, and animal husbandry were also subject to seasonal limitations and variations. In the discussion of clothing, shelter, and heating, we glimpse the few measures that were available in antiquity for ameliorating the effects of winter weather. With many of these subjects, the scarcity of the sources limits the confidence one might have in broad generalizations.

While R.'s study provides an interesting and lucid summary of several important phenomena, it could have been improved upon in several respects. To serve as a reference work, the presence of an index and a listing of cited passages would have been helpful, as would a comprehensive rather than select bibliography. Although the issue of climate change in antiquity is briefly mentioned, R. fails to address the potential implications this would have for his rather ahistorical approach (p. 86). The incorporation of appropriate archaeological evidence would also benefit any study of climate in antiquity. By focusing on just the literary sources, R. straddles the divide between the historical experience of winter in antiquity and the conceptualization of that experience. One would hope that future attempts at what may be deemed environmental history advance beyond such a predominantly descriptive approach.

Columbia University Y. ZELENER

THE BONES OF GIANTS

A. MAYOR: *The First Fossil Hunters. Paleontology in Greek and Roman Times*. Pp. xx + 361, maps, ills. Princeton and Oxford: Princeton University Press, 2000. Paper, £12.95. ISBN: 0-691-08977-9.

There are a number of early Greek references to marine fossil shells. The early Greek philosopher Xenophanes (*c.* 570–470 B.C.) drew the conclusion from the observation of fossil shells found inland and on mountains that the sea must have covered what is now dry land (DK21A33). And Herodotus (2.12, 13, following Hecataeus of Miletus) drew a similar conclusion from the observation of seashells on the hills of the Nile

© The Classical Association, 2003

https://doi.org/10.1093/cr/53.1.194 Published online by Cambridge University Press