

quality pictures are provided, often accompanied by radiographic images. Individual cross-sectional parameters and drawings of the cross sections at various levels of the diaphysis are provided for the long bones. These chapters constitute an invaluable source of comparative data for any researcher in human palaeobiological variation and prehistoric functional adaptations. In addition to raw data, bivariate plots and comparative tables of a number of skeletal measurements, discrete traits, enthesopathies and cross-sectional geometry compare Sungghir with a large comparative sample, which includes virtually all of the accessible Early and Middle Pleistocene Eurasian remains, as well as some more recent samples.

Chapter 17 is dedicated to the numerous abnormalities present in the Sungghir skeletal series, from developmental and degenerative pathologies, to unusual discrete traits. The perimortem injury present in the first thoracic vertebral body of Sungghir 1, probably due to the intentional or accidental penetration of a projectile or handheld blade, is described in detail. The most interesting individual in this respect is Sungghir 3, a late juvenile (9–11 years old) and probable female. Despite the abnormal anteroposterior curvature of the femora, for which a secure diagnosis is still not available, functional adaptations in the rest of the skeleton suggest that she was an active member of her social group. The use of biomechanical and musculoskeletal functional adaptations to infer whether and how individuals showing signs of pathology, and possibly disability, participated in the subsistence activities typical of their group (or whether they were ‘cared for’) is a promising field of inquiry. The authors elegantly hint at the contribution that the Sungghir remains may offer to the debate by referring to “Late Pleistocene humans with little alternative to active participation in the social group and its economics” (p. 288).

Chapter 18 is a summary of the dietary analyses performed on the Sungghir human remains, while the final chapter briefly reviews the contribution of the site to current debates on Mid-Upper Palaeolithic palaeobiology and population dynamics. From issues of consanguinity and population stability, to reflections on systemic stress, trauma, degenerative disease and survival, the authors outline once again the importance that Sungghir has for understanding of lifestyles and cultural practices of these ‘Hunters of the Golden Age’. Overall, this book is an important

contribution to the discipline of palaeoanthropology in general, and is certainly a mandatory addition to the library of any researcher in Palaeolithic human variation.

References

- ALEXEEVA, T.I., N.O. BADER, R.M. MUNCHAEV, A.P. BUZHILOVA, M.V. KOZLOVSKAYA & M.B. MEDNIKOVA (ed.). 2000. *Homo Sungghirensis. Upper Palaeolithic man: ecological and evolutionary aspects of the investigation*. Scientific World: Moscow (in Russian with English summaries).
- HOLT, B.M. & V. FORMICOLA. 2008. Hunters of the Ice Age: the biology of Upper Paleolithic people. *Yearbook of Physical Anthropology* 51: 70–99.
- ROEBROEKS, W., M. MUSSI, J. SVOBODA & K. FENNEMA (ed.). 2000. *Hunters of the Golden Age. The Mid-Upper Palaeolithic of Eurasia (30,000–20,000 BP)*. Leiden: Leiden University Press.
- ZUBOV, A.A. & V.M. KHARITONOV (ed.). 1984. *Sungghir anthropological investigations*. Moscow: Scientific World (in Russian).

VITALE STEFANO SPARACELLO
Department of Archaeology,
Durham University, UK
(Email: vitale.sparacello@durham.ac.uk)

PAUL HALSTEAD. *Two oxen ahead. Pre-mechanized farming in the Mediterranean*. xi+372 pages, numerous b&w illustrations, and tables. 2014. Chichester: Wiley-Blackwell; 978-1-4051-9283-5 hardback £60.



In *Two oxen ahead*, Halstead highlights both the underappreciated diversity of Mediterranean agriculture and illuminates the interconnection of a wide array of variables that influence decisions concerning all

aspects of farming in the Mediterranean. Drawing on more than two decades of interviews with, and observations of, Mediterranean farmers in a diversity of regions that include mainland Greece, the Cyclades, Cyprus, Spain, France and Italy, Halstead creates a richly nuanced account of Mediterranean farming in the recent past. In turn, the author’s personal field observations and anecdotes lay the

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groundwork for a discussion of Mediterranean farming in the more distant past.

The book is organised into seven chapters, each of which is illustrated by the author's field photographs. Chapter 1 introduces the book's aim of assessing recent farming practices in the Mediterranean and their significance for the interpretation of ancient agriculture; it also outlines the geographical locations of the ethnographic observations on which Halstead bases his discussion. As the author rightly notes, "traditional farming was not timeless" (p. 9) but has been shaped by economic, social and technological changes that argue against the uncritical reconstruction of agricultural history from the ethnographic present.

Chapter 2 focuses on field preparation and crop sowing. As Halstead amply illustrates with specific examples from Paliambela and Assiros, the decision of whether or not to use animals for traction involves numerous 'contingent considerations' (p. 39) that include the scale of cultivation, time stress, soil type and the availability of economic and social capital, namely animals for tillage or the ability to recruit human labour. Moreover, the broad terms 'ploughing' and 'sowing' are shown to encompass a variety of options, none of which are optimal in every situation.

Chapter 3 focuses on harvesting practices, as illustrated primarily through examples from the Cycladic island of Amorgos, with insights from observations elsewhere around the Mediterranean (e.g. Provence, Asturias, Crete, mainland Greece). Importantly, the author emphasises the entanglement of variables such as tool and crop choice, fodder demands, field size, labour availability and time-stress. He argues that the interlinked nature of these variables makes harvesting a key element that is under-examined in studies of the relationship between ploughing and social complexity. For example, although a farmer might be able to cultivate a larger area by using oxen for ploughing, the potential benefit of doing so is constrained by the harvesting demands of specific crops, how much straw is needed for fodder, the implements used in harvesting and whether or not enough labour for the harvest can be mobilised precisely when needed.

Chapter 4 opens with a detailed vignette of threshing, sieving and storage at Amorgos that includes a discussion of the shifting definition of crops destined for human or animal consumption and illustrates the flexibility of decision making with regard to

crop processing, setting the stage for a discussion of variation in crop processing across the wider Mediterranean. A key focus of the chapter is crop-related differences in processing strategies, with attention not only to free-threshing and hulled cereals but also to legume and oil crops, such as flax. This chapter demonstrates clearly the multi-layered relationship between the intended use of crops, available human and animal labour, and time constraints, and the methods of crop-threshing that are ultimately chosen—including whether to thresh at all. Winnowing and sieving receive equally thorough treatment, with decisions surrounding them related primarily to the size of the crop (for winnowing) and its intended use (for sieving). The discussion of cleaning and storage practices highlights in-field storage of crops, a practice that is largely invisible archaeologically unless widespread burning occurs. The examination of the scale and efficiency of different strategies, and the extent to which they are constrained by available labour and time, is especially enlightening, as it stresses the under-appreciation of the potential role of animal labour in threshing.

Chapter 5 focuses on the ways that farmers negotiate failure and sow success throughout the growing season, and how the strategies selected for particular crops may vary on an interannual basis. A particular strength of this chapter is its attention to the ways that farmers seek to balance the positive and negative consequences of manuring. The chapter also underscores the extent to which failure at different points in the growing season affects the ultimate disposition of field crops and whether or not they are weeded, reseeded, harvested, grazed or burned. As Halstead demonstrates, farmers' efforts prior to the growing season (long-term land stewardship) and at its onset (field preparation) are the most critical predictors of success.

In contrast to the short timescales of Chapter 5, the following chapter focuses on the intergenerational effects of economic and social relations in shaping long-term land management. For example, selected vignettes from Greece illustrate that a decision to invest in long-term land improvements, such as clearance, terracing or irrigation, is ultimately embedded in family structure and social relations, particularly concerning available labour. Notably, the author also discusses regional vegetation and climate differences, and their effects on such decisions.

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Chapter 7 interrogates the extent to which the observation of recent and modern farming is relevant for interpreting the traces of farming in the past, essentially revisiting the question of analogy in archaeological reasoning. Taking this discussion a step further, the chapter begins to apply modern data to assess the competing claims that farmers' decisions are most influenced by practical or cultural reasons or by environmental constraints. A key contribution of this chapter—and indeed of the book as a whole—is the extent to which it draws attention to the challenges of quantitative predictive modelling of costs and benefits of various decisions in a way that successfully emulates the iterative nature of human decision making across varied timescales (seasonal, annual, interannual, generational).

The conclusion of each thematic chapter, in the form of a discussion of the relevance of the modern evidence for understanding Mediterranean agriculture in the past, is a major part of the book's success. Analysis focuses on Graeco-Roman and earlier farming, particularly that of the prehistoric Aegean, and Halstead commendably integrates literary, artistic and archaeological evidence. The author's critical analysis often identifies useful caveats for nuancing archaeological interpretation. For example, the flexibility of choices concerning when and how to process crops obscures the archaeological identification of crop remains as either human food or animal fodder. The author's obvious enjoyment of re-telling informants' tales and activities, together with his regular inclusion of local ethno-agricultural terms and rituals associated with agricultural practices and products, enriches the narrative significantly.

Halstead's volume succeeds admirably in its goal of illuminating the diversity of Mediterranean agriculture and the complex and flexible nature of agricultural decision making. It is key reading for scholars of Mediterranean agriculture.

SUSAN E. ALLEN
Department of Anthropology,
University of Cincinnati, USA
(Email: allease@ucmail.uc.edu)

PENELOPE WILSON, GREGORY GILBERT & GEOFFREY TASSIE. *Sais II: the prehistoric period at Sa el-Hagar* (EES Excavation Memoir 107). xvii+280 pages, 281 b&w illustrations, 56 tables. 2014. London: Egypt

Exploration Society; 978-0-85698-218-7 paperback £70.



The site of Sa el-Hagar, named after a nearby modern village in the western Nile Delta of Egypt, was known in the past as Sais. It appeared as a religious centre in the written records of the first dynasty of the

ancient Egyptian state, and became the capital city of the twenty-sixth dynasty. Previous research at the site, however, had found no evidence of human habitation of the pre-dynastic or even earlier periods; a new research project by the Egypt Exploration Society and Durham University has succeeded in revealing the late prehistory of this site for the first time.

After preparatory fieldwork, including core drilling and test excavations across the large concession area, the project concentrated on one promising locality for further investigation where excavation was carried out in unusual circumstances. The locality had already been seriously affected by the construction of an embankment, and a large depression named the 'Great Pit', approximately 400 × 400m and 4m deep, had been created. As a result, the project could excavate early layers in deep soils that were otherwise unreachable, although pumping was required to remove ground water. The latter issue, and time constraints, restricted the excavated area to 10 × 10m, reaching a depth of approximately 3m. The volume under review is the outcome of this painstaking excavation and the meticulous study of the finds.

The volume consists of 11 chapters and appendices. Chapter 1 briefly describes the history of the site and the background to the research. Chapters 2–5 describe respectively the four stratigraphic phases identified on the basis of finds, as well as a few radiocarbon dates: the top layer, dated to the twenty-sixth dynasty, followed by the pre-dynastic (Sais III), Late Neolithic (Sais II) and Early Neolithic (Sais I).

Following a total collection policy, all small artefacts and organic remains were collected by hand picking and sieving. Chapters 6–10 deal respectively with lithic artefacts, pottery, miscellaneous objects and faunal and botanical remains from the three prehistoric phases. It is noted by each specialist that

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