Review

Reviewed Work(s): Archaeodiet in the Greek World: Dietary Reconstruction from Stable Isotope Analysis by Anastasia Papathanasiou, Michael P. Richards and Sherry C. Fox

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***Archaeodiet in the Greek World: Dietary Reconstruction from Stable Isotope Analysis.* Edited by Anastasia Papathanasiou, Michael P. Richards, and Sherry C. Fox.**

Hesperia Supplement 49. Princeton, NJ: The American School of Classical Studies at Athens, 2015. Pp. xii + 211, 52 b/w figures, 31 tables. Paperback, $75.00. ISBN: 978-0-87661-549-2.

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This book presents a focused and informative discussion of ancient human diet from a variety of archaeological sites in Greece through stable isotope analyses. The work collects the papers presented at a special session of the 16th European Meetings of the Palaeopathology Association in Greece in 2006. The volume includes all of the conference papers in expanded form (with one exception) as well as two additional contributions. The aim of the conference session was to review the present state and future perspectives of past dietary reconstruction in Greece through the lens of stable carbon and nitrogen isotope analyses. Papathanasiou and Fox assert in their introductory chapter that "this book aims to bridge biology and culture, biochemical analyses and archaeological questions through a comprehensive presentation of palaeodietary reconstructions for a number of prehistoric and historic Greek sites, covering a broad spatial and cultural range" (p. 1). The volume succeeds in meeting these goals and will become a valuable resource for anyone working in the region.

The volume editors are established professionals in both archaeology and the subfields of isotopic analyses and palaeodietary analyses. In Chapter 1, Papathanasiou and Fox set the stage and provide the spatial extent of the work (Figure 1.1) and the cultural range and chronology (Mesolithic-Byzantine periods—Table 1.1). In Chapter 2, Richards provides an excellent overview of the primary methodological focus of the book: stable isotope analysis of bone and teeth as a means for reconstructing past human diets in Greece. This chapter clearly discusses the analytic methodology, laboratory procedures, and preparation of stable isotopes samples and is reasonably accessible for the non-specialist, although the phrase "accessible for the non-specialist" may not be a term that can be used throughout the book. The final chapter by Papathanasiou and Richards summarizes the key points of interest and also keeps the book comprehensible to the larger discipline of archaeology and anthropology in the region.

The methodological focus of the book is solely on the isotopes of carbon and nitrogen and almost exclusively on bone collagen, though it is possible to analyse both the organic and inorganic components of bones and teeth in isotopic analyses. Bone collagen, the organic component of bone, makes up approximately 20–25 percent by weight of fresh bone. The inorganic carbonate component of archaeological bone and tooth enamel has also been used as a source for stable isotope studies. The inorganic component often survives better in the archaeological record, particularly in very old samples and in regions where organic preservation is very poor. However, if preservation is good, it is ideal to perform analysis of stable carbon isotopes from both collagen and carbonate because the two tissues reflect different dietary sources. Collagen is formed largely from the protein in the diet while carbonate reflects a picture of the whole diet. The editors and the authors are aware of this focus and should not be expected to be apologetic. However, where Papathanasiou (Chapter 3) mentions 11 samples of bone

apatite carbonate as part of her overview of Neolithic and Bronze Age isotopic data, the data is not presented in the figures or tables, which is a problematic omission.

At the same time, the tight focus on bone collagen carbon and nitrogen isotopic analyses allows a particular emphasis on archaeological research questions of interest to scholars of prehistoric and historic Greece. Collagen analyses reflect the protein component of the diet and, in conjunction with nitrogen isotope data, allows for the investigation of the importance of marine versus terrestrial protein in human diets, a question that is tackled in almost all chapters. The importance of millet in the diet is discussed in many chapters and the timing and practice of weaning of children is a key topic. In addition, the resolution and limitations of the isotopic techniques are recognized and discussed. However, discussion throughout the book is not simply on the methodology of isotopic analyses, but the important link to key archaeological questions that can be addressed by these techniques. Papathanasiou and Fox introduce this emphasis with the section: "Questions of Greek Archaeology Addressed by Isotopic Studies" in Chapter 1. Each of these questions is effectively linked to topics of anthropological archaeology, including the analyses and discussion of age, sex, and class divisions within society. Both authors and editors advocate for an integration of the isotope data with other archaeological lines of evidence, drawing strongly on zooarchaeological and archaeobotanical databases in Greece, a key strength of the publication. As is highlighted by Lagia (Chapter 8), the use of stable isotope provides the means to explore dietary variability within regional and temporal frameworks and, in combination with analyses of dietary practices derived from the same context as the samples, it is now possible to evaluate the data interregionally, chronologically, and comparatively (p. 119).

The integrative nature and broad regional and temporal coverage of the volume allows the inclusion of data that might not otherwise see publication. Iezzi (Chapter 6) notes several limitations to the sample for reconstructing subsistence in Myceneaean-era East Lokris, including small sample size, lack of sample quality assessment, and lack of comparative faunal material. Often, these issues would be presented in a conference paper but fail to meet the more rigorous standard for publication. I praise the editors for the chapter's inclusion in this volume. Despite the limitations of the study, it allows for discussion of the case beyond the conference venue.

Several minor criticisms can be made of the volume. Support for interpretations are occasionally provided using statistical analyses, although this is not consistently applied throughout. A list of contributors with additional biographical information on each scholar would have been useful to those wishing to further explore the researchers' other works.

While a specialized topic within archaeology, this volume should be required reading for anyone who is interested in the archaeology of food and subsistence, Greek archaeology (both prehistoric and historic), and archaeological science. As Papathanasiou and Fox (p. 5) assert, the "results complement each other regionally, temporally, and culturally, while the map is being filled with ever-increasing detail." This volume effectively builds on previous palaeodietary research in the region and updates our knowledge of the field with current techniques, research questions, and discussions. Further, it sets the stage for continuing research in the region. The audience should look forward to seeing expanded isotopic results as the map of the Greek world is filled with new information on archaeodietary reconstruction.

***The Smithsonian Institution Excavation at Tell Jemmeh, Israel, 1970–1990.* Edited by David Ben-Shlomo and Gus W. Van Beek.**

Smithsonian Contributions to Anthropology 50. Washington, DC: Smithsonian Institution Scholarly Press, 2014. Pp. xxxiv + 1087. Hardback, $99.95. ISSN 0081-0223. Online, ISSN 1943-6661. Open access version at http://opensi.si.edu/index.php/smithsonian/catalog/book/36.

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The most comprehensive and thorough book review of an archaeological report was Paul W. Lapp's review of the Iron Age materials excavated at Tell Deir 'Alla by H. J. Franken (Lapp 1970). It is important to note that in