

Book Reviews

HUMAN REMAINS IN ARCHAEOLOGY: A HANDBOOK. By Charlotte A. Roberts. York, England: Council for British Archaeology. 2009. 311 pp. ISBN 978-1-90277-175-5. \$35.00 (paper).

The study of human remains has long been a focus of physical anthropologists and bioarchaeologists in American and Canadian anthropology programs. In Britain, however, the persistence of separate archaeology departments has hindered the integration of “bioarchaeology” or “ostearchaeology” into archaeological research, despite the inception in the 1990s of several master’s programs in topics such as funerary archaeology and paleopathology. Charlotte Roberts’s handbook on archaeological human remains is especially suited for use as a textbook in these master’s programs aiming to fill a need for a manual on “all aspects of the recovery, handling, and study of human remains” (back cover).

The book is clearly designed to serve as a course textbook. Each of the eight chapters ends with a short summary and list of “key learning points.” The first two chapters introduce the study of archaeological skeletal remains and related ethical issues. The next two chapters concern mortuary behavior and various ways the dead are treated, taphonomy and differential preservation, and the excavation and curation of human remains. The bulk of the book (Chapters 5–7) is devoted to the laboratory analysis of human remains and encompasses over half the text. A glossary is provided after a brief concluding chapter.

While the book as a whole has much to recommend it, it is not without weaknesses. For example, in the first chapter—“Why Study Human Remains from Archaeological Sites?”—Roberts outlines the scope and structure of the book, provides a brief history of skeletal studies, and notes significant collections of archaeological and documented skeletons. Although the rest of the book implicitly answers the question posed by the chapter’s title, this question is not explicitly addressed at the outset, thereby missing a significant opportunity to capture readers who may question the importance of studying human remains. Incorporating a few examples to illustrate ways in which human remains contribute to our understanding of past peoples would address the question and form a springboard for the later chapters, spurring readers to delve further into the book.

Chapter 2, “Ethical Concerns and Human Remains,” focuses on British legal requirements for excavation and retention of human remains for study. The United States is used as a comparative case study in a short section (less than three pages) at the end of the chapter. Laws pertaining to excavation of human remains in other countries are mentioned only in passing. The lack of an international focus in this chapter limits the book’s utility outside of Britain. Supplemental material concerning legalities and ethical debates in other countries could be assigned in non-British university courses to remedy this problem. The first half of Chapter 3, “Disposal and

Preservation of the Dead,” is also specific to Britain. In contrast, in the second half of the chapter, Roberts illustrates the effects of environment on preservation with examples from around the globe. I must admit I have semantic issues with this chapter. Although probably not the author’s intent, “disposal” is used throughout, implying that all treatments of the dead—whether cremation, exposure, or interment in a cemetery or under a house floor—were principally ways to get rid of an objectionable corpse. I would prefer to stress how mortuary treatment and surrounding ritual may serve multiple functions, such as celebrating a person’s life and role in society, venerating ancestors, or demarcating a group’s territory, among a range of other possibilities that might include placing the body in a midden with the trash.

Although there are numerous factual and grammatical errors or contradictions that detract from the text at times, the book’s primary shortcomings are in the first three chapters. The remainder of the book has much to offer. In Chapter 4, excavation of human remains and subsequent preanalytical processing and curation are considered, aspects infrequently covered in other texts. There is even a section on health and safety, focusing on potential hazards from exposure to lead or organisms in dust or human remains. Instructions, with accompanying illustrations, are given for cleaning, labeling, and packing skeletal remains in bags and boxes. Conservation during and after excavation and collection management, topics often neglected in osteology or bioarchaeology courses, are also discussed at length. The portion of the book devoted to analysis of skeletal remains is clearly the author’s forte. Beginning in Chapter 5, Roberts provides information on working in an osteology laboratory, the basics of human osteology and bone biology (including overviews of sex and age determination), paleodemography, metric and nonmetric analyses, and contextualizing these data. Chapter 6, on paleopathology, emphasizes “themes” like living environment, diet, work, and conflict rather than the usual descriptions of different conditions that affect the skeleton. I was excited to see this topical treatment, as it fits well with the “health and disease” module in my own undergraduate bioarchaeology course. The last “analysis” chapter concerns histology, radiography, and biomolecular studies, especially the use of stable isotope and ancient DNA analyses to assess diet, relatedness, or mobility. Rather than advocating wholesale application of these biomolecular methods, Roberts stresses that they are invasive and should be used judiciously to answer broad research questions. Such an emphasis at the end of this handbook is a welcome reminder that human remains are a nonrenewable resource and provide invaluable information when properly excavated, curated, and analyzed. Thus, the manual goes beyond the classroom to serve as a useful reference for anyone—student or professional, physical anthropologist or archaeologist—who might encounter human remains in field or laboratory settings.

In sum, the strengths of this book outweigh its weaknesses. It is well illustrated and highly readable, making it accessible for those lacking expertise in human osteology or bioarchaeology. With the caveats regarding the

focus on Britain, this handbook draws together a great deal of information in a single volume. I will likely use it in my future bioarchaeology courses.

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PRIMATE CRANIOFACIAL FUNCTION AND BIOLOGY. By Christopher J. Vinyard, Matthew J. Ravosa, and Christine E. Wall. New York: Springer. 2008. 496 pp. ISBN 978-0-387-76584-6. \$159.00 (hardcover).

Edited books resulting from conference symposiums can be hit or miss. Some, such as Frederick Grine's (1988) "Evolutionary History of the 'Robust' Australopithecines," become classics in the field. Others seem more like a collection of ideas that have been published elsewhere in one form or another or a hodgepodge of works in progress that lack cohesiveness and leave the reader without any real sense of the symposium's purpose or goals. I was pleased to discover that "Primate Craniofacial Function and Biology" is a "hit." This volume in honor of Dr. William L. Hylander is full of insightful analyses that leave no doubt as to the vitality of research on primate skull function. It also does a commendable job of highlighting the importance of Hylander's work as a foundation for current and future research in this area.

The breadth of cutting-edge methodological approaches presented in this volume make it a valuable introduction to the study of primate skull functional morphology. These include studies of bone strain and muscle recruitment patterns (both cornerstones of Hylander's own work), muscle scaling patterns, bone microstructure and material properties, and food mechanical properties and their relationship to tooth and jaw morphology. There are modeling studies as well as *in vivo* and *in vitro* research, and the study subjects encompass a diversity of taxa including prosimians, New World monkeys, Old World monkeys, and fossil hominins. There are even studies of nonprimates such as mice, rabbits, pigs, camelids, and marsupials, all of which present interesting comparative tests for functional hypotheses of particular primate features. For example, anthropoid primates, pigs, and camelids all fuse their mandibular symphyses. However, strain gauge experiments conducted by Herring et al. (pigs, Chapter 2) and Williams et al. (camelids, Chapter 3) conclude that symphyseal fusion likely occurred for a different reason in primates (wishboning or lateral transverse bending) than it did in either of the other groups.

Given that many of the authors worked closely with Hylander at one time or another, it is not surprising that only one chapter (Simons, Chapter 18) does not focus on the masticatory system. This may be disappointing to those wanting a more holistic view of primate skull function, but I do not feel that it is a significant detraction. The book is still full of interesting and thought-provoking research, albeit with a slightly more limited scope than the title suggests.

Useful introductions start each of the five major sections providing clear and concise summaries of the research in the subsequent pages. However, some additional effort on the part of the editors to draw connections between the studies in each section, and possibly between sections, would have been valuable. For example, Wang et al. (Chapter 8) suggest that fused cranial sutures allow the transfer of strains whereas unfused (patent) sutures do not, and this agrees with earlier chapters on the mandibular symphysis in which symphyseal fusion appears to allow the transfer of strains from balancing-side muscle action. Drawing such connections would help readers synthesize research from individual chapters and come away with a better understanding of the field as a whole.

In general, the figures are well selected and add to the reader's understanding of the research being presented. However, there are occasional exceptions. The figures in the Ross chapter (Chapter 4) have separate lines to indicate the magnitude and direction of the maximum principal strains for chewing on both the left side and right sides, but it is impossible to distinguish between the lines for the left and right sides in the figures. I must surmise that these figures were originally in color and the transfer to black and white resulted in the loss of this important information, although even varying the grayscale of the two lines likely would have been enough to make the distinction. Figure 13.2 in the Dechow et al. chapter (Chapter 13) is another point of confusion. Four boxes are depicted to show differences in directional properties, but the three boxes that are supposed to show orthotropy, transverse isotropy, and isotropy all appear to show orthotropy. Fortunately, the description in the caption is well written and one can still ascertain the meaning of these terms.

These minor points aside, I was repeatedly impressed with the quality of the work presented here, and there are very few chapters from which I did not learn something new. The diversity and quality of research in this book make it a particularly useful resource for new Ph.D. students interested in primate craniofacial biology as they struggle to identify suitable dissertation topics, although the fairly high price tag will likely keep most students from purchasing their own copies. This book would also be valuable for professors and researchers who simply want to stay up to date on the myriad approaches currently being undertaken to understand primate skull function, particularly if they have a special interest in the masticatory system. For someone not accustomed to reading about biomechanics, the terminology can get a bit dense in places, but in general the

authors do an admirable job defining technical terms, and the index is useful and quite complete.

This book is a fitting tribute to Hylander's pioneering and influential research. It quickly becomes clear as one moves from one article to the next that Hylander's influence on this field will be felt for many years to come. To the authors' (and editors') credit, Hylander's contributions are often mentioned specifically either in the body of the text or in the acknowledgments of each chapter. For example, Williams et al. (Chapter 3) provide an excellent summary of Hylander's work on anthropoid symphyseal fusion. In addition, Chapter 1 by Schmitt et al. recounts Hylander's role in answering Sherwood Washburn's call for an experimental approach in physical anthropology.

The symposium on which this volume is based took place at the 2005 meetings of the American Association of Physical Anthropologists. That was the 75th anniversary

of the AAPA, and I recall a poster from those same meetings in which over 44% of American field primatologists were found to be academic descendants of Washburn. It is clear from this book that Bill Hylander has had an equally profound influence on the study of primate skull function.

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BONES AND OCHRE: THE CURIOUS AFTERLIFE OF THE RED LADY OF PAVILAND. By Marianne Sommer. Cambridge, MA: Harvard University Press. 2007. 398 pp. ISBN 0-674-02499-0. \$42.00 (hardcover).

The Red Lady of Paviland is a partial human skeleton, missing its skull, covered in red ochre and associated with a number of possible grave goods (periwinkle shells, ivory rods, and rings). It was excavated in 1823 by William Buckland at Paviland Cave, or Goat's Hole, in northern Wales. Despite its common appellation, it is an anatomically modern male, now thought to be a Gravettian burial. In this book, Marianne Sommer, a historian of science, presents the "biography of a scientific object" (p. 3). She does not just review the history of research at Paviland Cave, but also the role of the skeleton in the construction and reconstruction of ideas about early human history. She discusses three stages in the production of this knowledge: 1) the initial discovery of the skeleton by William Buckland; 2) its reinterpretation by William Sollas in the early twentieth century, in the light of growing evidence of human biological and cultural evolution; and 3) the late twentieth century re-examination of the site by Stephen Aldhouse-Green and his colleagues.

Sommer states that what was initially important about the Red Lady was its status as the first genuinely fossil human skeleton discovered by a scientist. But its discoverer, William Buckland (1784–1856), was not your average scientist. He was the first Reader in Geology and Mineralogy at Oxford University, but he was also an Anglican churchman and eventually the Dean of Westminster. As such, he was *the* authority to whom amateur collectors of fossils and what we now recognize as Palaeolithic artifacts deferred. Since he believed in a literal biblical interpretation of history, one could make a reasonable case that he single-handedly delayed the scientific establishment of human antiquity in the British Isles by at least thirty years. For him, any human remains or artifacts associated with so-called extinct animals had to date from the Diluvial Period, that of Noah's flood, or immediately before it. On the positive side, Buckland was one of the first to emphasize the formational processes behind the fossil bones recovered from

caves and carried out experiments with African hyenas to establish their role in accumulating bones. He used these studies to dismiss the possibility that humans had a role in the accumulation of any Pleistocene bones.

For Buckland, the Paviland burial represented a genuine archaeological site. As a result, it had to be quite recent. He originally interpreted the skeleton as that of a tax collector, surrounded by his ivory receipts. Eventually, he described it as that of a female and the ochre as a "scarlet letter" identifying the woman as a prostitute or witch. He stressed its burial in a remote, forbidden place, near an ancient Romano-British camp. In this immortal phrase from his *Reliquiae Diluvianae* (1823), Buckland concluded that the camp "seems to throw much light on the character and date of the woman under consideration; and whatever may have been her occupation, the vicinity of a camp would afford a motive for residence, as well as the means of subsistence" (cited on p. 65). This is the picture that most historians of Palaeolithic research present of this find. It was a genuine fossil human burial misinterpreted by its discoverer.

Did the reinterpretation of the site and skeleton by William Sollas (1849–1936) offer a better answer? Sollas, one of Buckland's successors to the Chair of Geology at Oxford, was aware of the ever-increasing evidence of fossil humans and their artifacts. He concluded that the Red Lady was an Aurignacian male burial, a Cro-Magnon just like those that had been recovered in the Dordogne a few decades before. This is much closer to the modern interpretation but still had a number of problems. He fit the skeleton into a racial theory of humankind but eventually accepted that it represented one of the possible ancestors of modern Europeans.

The third study discussed is that of a team of researchers led by Stephen Aldhouse-Green of the University of Wales. This began in 1995 and led to a multidisciplinary monograph, published in 2000. The goal of their work was to re-examine the finding and to produce a "definitive report" on the site. They wanted to conduct new excavations but discovered that the relevant deposits had all been removed during earlier work or by subsequent scouring of the cave by the sea. But by examining the original

reports and by reanalysis of the findings, they concluded that the Red Lady was indeed male but dated to the Gravettian, about 26,000 radiocarbon years ago. Aldhouse-Green and his colleagues used the latest methods to re-examine the skeleton and its associated artifacts. For example, Brian Sykes carried out a mitochondrial DNA study, and Sommer cites the original report that the skeleton belongs to the dominant mtDNA lineage among modern Europeans. But nowhere does she say which one this is. The most common mitochondrial haplogroup in Western Europe today is H, my own type, but this lineage only goes back to around 20,000 years ago. But, once again, science is not enough. Aldhouse-Green concludes that the Red Lady must have been of high status and possibly a shaman buried in a sacred and venerated place. To some extent, this is not that radically different from what Buckland said almost 180 years before.

The history of the "establishment of human antiquity" has been written about before, notably by Donald Grayson in a book of the same name, as well as by Bowdoin

Van Riper (*Men Among the Mammoths*, 1993). Both of these books, however, are histories of the discovery of the Palaeolithic that stress the triumph of science over superstition. Instead, Sommer offers a postmodern interpretation to examine the construction and ownership of knowledge about the Red Lady. Clearly, not only were earlier workers influenced by their social climate, modern researchers are too. Research continues on this finding, and no doubt it will continue to swing between relativist or positivist perspectives.

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BIOARCHAEOLOGY AND IDENTITY IN THE AMERICAS. Edited by Kelly J. Knudson and Christopher M. Stojanowski. Gainesville, FL: University Press of Florida. 2009. 272 pp. ISBN 978-0-8130-3348-8. \$75.00 (cloth).

Anthropologists reveal and strive to make sense of different ways to be human. To this end, the study of identity is especially salient. Ethnographers, for instance, have demonstrated that identities—their formation, transformation, and eradication—communicate a culture's beliefs and values and, in so doing, dictate socially acceptable categories of person. Social theorists have also underscored that contemporary peoples' identities are shaped by individual experiences of and engagement with the world. Yet, materializing ancient identities is not for the data-deficient or theoretically disinclined. Such may explain bioarchaeologists' reticence to broach the topic as well as its reductive treatment in many studies. There are, however, a small but growing number of publications that neither avoid nor unduly simplify the topic. Happily, the edited volume *Bioarchaeology and Identity in the Americas* is a welcome addition to this corpus.

As Knudson and Stojanowski remark in their introduction, bioarchaeology will advance understandings of identity given "the attendant time-depth offered by an archeological chronological framework as well as the direct engagement of the physical body in the construction of social identity" (p. 1). It is contextualized biological data that allow for consideration of dynamic social processes and principles. Hence, identity and its (re)formation are best broached with a biocultural and theoretically informed perspective in place. With respect to the latter, Buikstra and Scott's Chapter 2 provides an overview of theoretical concepts central in identity studies. Their clear and accessible synthesis is a springboard for those with little exposure to the broader literature pertaining to agency, embodiment, personhood, and selfhood. This chapter, however, should not be used as a substitute by bioarchaeologists who endeavor to investigate identity. Rather, engagement with primary and canonical writings, despite these sources' linguistic and conceptual challenges, is essential. In light of the es-

oteric nature of identity theory, the majority of volume contributors make excellent efforts at grounding abstract ideas with empirical evidence. Duncan, for instance, uses notions about embodiment to consider the significance of Maya cranial modification. One question he asks is "Are individuals without modified crania somehow less fully embodied members of society than individuals with such modification?" (p. 177). In answer, Duncan argues that cranial shaping was one method deployed to protect newborns against soul loss, but ethnographic accounts suggest it was not the only one. Other practices may simply have been less indelible, hence, the absence of shaped crania.

Case studies throughout the volume demonstrate the importance of examining identity at multiple spatial and social scales, from the regional and widespread down to the local and personal. Part I, with its focus on community identity and ethnogenesis, includes queries best answered by compiling data from the larger group or population. For example, in his study of the northern Peruvian highlands' Chachapoya region, Nystrom examines craniometric data to determine the extent of ethnic diversity prior to Inka conquest. In keeping with archeological and ethnohistoric evidence, which indicates biological and material heterogeneity, genetic models reveal "phenotypically variable populations connected by limited internal gene flow" (p. 96). In contrast, the chapters in Part II deal with individual-oriented issues that speak to (in)congruities within identifiable patterns. I find these contributions particularly refreshing, in that they stress the importance of scaled-down approaches, as a complement to the populational perspectives that dominate currently in bioarchaeology.

Regardless of the scale, however, the varied lines of evidence that all authors bring together—artifactual, ethnohistoric, and ethnographic—allow for contextualization of biological data and more nuanced interpretations of past practices and beliefs. For example, Knudson and Blom draw on isotopic signatures, biodistance data, cranial modification styles, and burial information to determine the extent and nature of Tiwanaku's influence

during the Middle Horizon (AD 500–1100). In southern Peru at Chen Chen, they find evidence of immigrants from the Lake Titicaca basin; whereas, local inhabitants at San Pedro de Atacama in northern Chile actively manipulated interactions with the powerful polity. Torres-Rouff's chapter follows, offering a complement with its analysis of 900 modified crania from seven cemeteries at San Pedro de Atacama. As she asserts, the end of the Middle Horizon brought social and environmental instability and during this time shifting modification styles signified reconstitution of Atacameños' group identity.

As these two chapters illustrate, the materialization of ethnic identity is focal in the volume. Taken together, authors' examinations undoubtedly expand the broader literature concerned with ethnicity in the past and present. Stojanowski's chapter is a case in point. He examines biodistance, archeological, and historical data "to argue that the Seminole, generally considered 18th century migrants to Florida, are, in part, biological descendants of the pre-Columbian populations of the state" (p. 60). Their ethnogenesis began during 17th century Spanish colonization, when demographic collapse resulted in out-migration and fugitivism. While his arguments will certainly be controversial, he should be commended for considering how bioarcheological studies resonate in contemporary Indian communities.

Despite the volume's many strengths, I do see some shortcomings. Early on, Buikstra and Scott remark that

identity is "socially constructed, situational, and fluid" (p. 26). Such a definition stresses that identity is the complex intersection of age, gender, religion, social status, ethnicity, and (dis)ability. It seems, however, that several chapters stop short of considering identity as plurality. In the case of authors' considerations of ethnicity, for instance, I wonder how age, gender, and/or class complicated identity (re)constitution. Additionally, readers may query how those who lack exceptional preservation, rich historic documentation, and relevant ethnographic analogies can effectively contend with issues related to identity. The bar is set high indeed. Nevertheless, these criticisms are not directed toward the methods and theories used by volume's contributors. Nor, is my intent to dissuade bioarcheologists from pursuing further investigation of identity. Yes, the endeavor may be difficult, but this volume makes plain the promise of such research and offers an important guide for future work.

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