Bioarchaeology of Southeast Asia

Bioarchaeology of Southeast Asia is the first book to examine directly the biology and lives of the past people of this region. Bringing together the most active researchers in late Pleistocene/Holocene Southeast Asian human osteology, the book deals with two major approaches to studying human skeletal remains. Using analysis of the physical appearance of the region’s past peoples, the first section explores such issues as the first peopling of the region, the evidence for subsequent migratory patterns (particularly between Southeast and Northeast Asia) and counter arguments centering on *in situ* microevolutionary change. The second section reconstructs the health of these same people in the context of major economic and demographic changes over time, including those caused by the adoption or intensification of agriculture. Written for archaeologists, bioarchaeologists and biological anthropologists, it is a fascinating insight into the bioarchaeology of this important region.

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Foreword  Emerging frontiers in the bioarchaeology of Southeast Asia

CLARK SPENCER LARSEN

Much has changed in the two decades since Karl Hutterer (1982) lamented that tropical Southeast Asian archaeology had not advanced much beyond antiquated models based on limited empirical evidence. Indeed, in just the last few years, the scope of archaeology of this region has expanded in new and exciting ways (see Bellwood 1997, Higham and Thosarat 1998, Junker 1999, Higham 2003, Glover and Bellwood 2004). In reading the published archaeological literature on the region before the 1990s, one cannot help but ask why human remains – a highly visible part of this record, having been recovered from such well-known sites as Non Nok Tha and Ban Chiang in Thailand and Niah Cave in Borneo – have not been brought into the discussions about such issues as adaptation, landscape use, population history, settlement, subsistence practices and dietary shifts. Indeed, in this as in other areas of the world, the adoption of agriculture led to fundamental alterations of cultures and landscapes. Human remains provide an informative record of this important adaptive transition (e.g. Krigbaum 2003). Why not include them?

One reason for the lack of inclusion of human remains in developing an understanding of the prehistory of the region is that very little beyond descriptions of skeletons (e.g. Brooks et al. 1979) had been published prior to the mid 1990s. The other reason is that archaeologists have oftentimes viewed skeletons as not particularly informative about the past. Scientific reports on skeletons typically ended up as an appendix to an archaeological report, rarely read and not a part of the larger perspective about a region and its prehistoric occupants. This approach is changing, however. On the one hand, the results of new and comprehensive analyses of human remains from this region are appearing in the scholarly record (e.g. Tayles 1999, Oxenham 2000, Domett 2001, Pietrusewsky and Douglas 2002, Krigbaum 2001, 2003). These bioarchaeological studies provide a wealth of new information about population history, colonisation, lifestyle, foodways, nutrition, adaptive shifts, and specific and general
aspects of health. On the other hand, we are beginning to see a greater appreciation for the role that analysis of skeletons can play in reconstructing and interpreting the past. Here and elsewhere, this transformation reflects the remarkable expansion of bioarchaeology since the early 1990s (see Larsen 1997, 2002), whereby human remains are increasingly seen as an important part of the design and completion of archaeological research.

Recognising the importance of the human skeletal record in Southeast Asia, Oxenham and Tayles have gathered leading experts to present their research on two areas of bioarchaeological enquiry: population history and health. Part I, the population history section, presents evidence from the analysis of cranial metric and non-metric data that speak to a complex population history involving both migration and in situ development. In the larger picture, Matsumura provides evidence to suggest that present-day Southeast Asian populations are genetically influenced by migrations from Northeast Asia (Ch. 2). In the last five millennia or so of prehistory, there is substantial evidence indicating local population continuity in inland Southeast Asia, perhaps more so than in coastal settings (Chs. 3 and 4). Within specific regions, we see biological change, such as involving a reduction in cranial length and facial robusticity, in peninsular Malaysia (Ch. 6), a pattern that has been well documented in other areas around the post-Pleistocene world. Arguably, these morphological changes reflect adaptation to new circumstances affecting the mastication and craniofacial development, such as the adoption of new foods and new ways of preparing them. Prior to the 1980s, such cultural and biological changes were largely seen as being externally driven (Hutterer 1982). The bioarchaeological record is showing that the origins of biological and cultural variability are complex and derive from both external and internal forces, ultimately resulting in the cultures and peoples that we see distributed about this vast region of the world today.

Part II deals with the palaeopathological record and adds much to the emerging picture of the history of human health in the Late Pleistocene and Holocene. Dental health – especially as it is represented by dental caries – does not appear to have declined substantially with the adoption of rice agriculture, either within particular settings (Ch. 9) or the region generally (Ch. 11). This seems to be the case because rice is not especially cariogenic, in contrast to plants domesticated in other areas of the world (e.g. maize in the Americas). Therefore, it should come as little surprise that health declines in the region are minimal (or non-existent) in comparison with other regions of the world where agriculture emerged (Larsen 1995), at least with respect to oral health. Although the evidence is more
preliminary, other skeletal indicators (e.g. infection) also show lack of substantive health change (see Pietrusewsky and Douglas 2002).

There are some large skeletal samples in the region covered by this book (e.g. Ban Chiang), but overall, the samples are small, especially in comparison with settings from eastern North America and western Europe. Despite the limitations, the contributors to this volume present a fascinating picture of biological complexity, population history and health in prehistory. Understanding this bioarchaeological record of the past helps us to understand better the peoples and cultures that live in the region today.

References


Preface

For every complex problem, there is a solution that is simple, neat, and wrong!

Attributed to H. L. Mencken

We hope that this book will spark wider interest in the bioarchaeology of Southeast Asia, including the neighbouring Pacific, and will spur the development of greater synthetic and collaborative research in the region. It is a delight to read about the culture, the society, the technology, the subsistence, the settlement patterns and the environment of prehistoric populations; however, central to all this are the people themselves. Nothing brings them to life as individuals, communities and populations like the physical remains themselves. They are, or should be, central to any archaeological endeavour. In particular, we hope that it will spark the interest of indigenous researchers and encourage them to consider the study of human skeletal remains as a central component to any archaeological project (even if it is only to show us that we have got it all wrong!).

The editors would like to thank all of the authors for their contributions to this volume. Further, we wish to thank all those anonymous reviewers who spent a considerable amount of their time and energy in providing a wealth of critical and constructive comment on each and all of these chapters.