

## Book Review

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**Ban Chiang, A Prehistoric Village Site in Northeast Thailand. I: The Human Skeletal Remains.** By Michael Pietrusewsky and Michele Toomay Douglas. University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia. 2002. ISBN 0–924171–92–8. 493 pp., 114 figures, 81 tables, with CD-ROM. \$100.00 (cloth).

The Ban Chiang archaeological site in northeast Thailand is best known for the spectacular pottery and developed bronze metallurgy. The skeletal material excavated from the site spans a period from 2100 B.C. to A.D. 200. This span includes the late neolithic, bronze age, and iron age deposits, representing a single cultural tradition that underwent significant changes in technology and a shift toward intensified rice cultivation. Major excavations were undertaken in 1974 and 1975 by the joint program of the Fine Arts Department of Thailand and the University of Pennsylvania Museum of Archaeology and Anthropology. The Smithsonian Institution produced a traveling exhibition “Ban Chiang: Discovery of a Lost Bronze Age” in 1982. The site was inscribed on UNESCO’s World Heritage List in 1992 as the most important prehistoric settlement so far discovered in Southeast Asia.

The human skeletal remains were shipped to Hawaii and the cleaning, restoration, and data collecting were made by the authors and students in the Department of Anthropology of the University of Hawaii at Manoa. The material is currently stored in the above department, but will eventually be returned to Thailand.

This book published as the first volume of a series of excavation reports edited by Joyce C. White gives a full report of physical anthropological studies on more than 142 human skeletal remains recovered from the site. It will be followed by volumes presenting the excavations, chronology, and stratigraphy of Ban Chiang and the archaeometallurgy of northeast Thailand.

The subject of the authors’ investigation was not confined to adult materials and cranial remains but included all the subadult materials and every bone of the skeleton. Research methods, outlined in Chapter 2 (Methods), are comprehensive, covering not only traditional measurements and indices but also non-metric morphological variation and palaeopathology (including cultural and activity-induced alterations). One of the major features of this volume is the heavy emphasis laid on detailed palaeopathological description of the bones and teeth that amounts to about two-fifths of the text.

The primary purpose of this volume is the comprehensive presentation of descriptive data of the human remains excavated in 1974 and 1975 at the village of Ban Chiang. It is fully achieved by descriptions in Chapters 3, 10 (Skeletal Condition;

Noteworthy Burials), Chapters 5, 6, 8 (Craniology; Dental Morphology; Infracranial Skeletal Morphology), Chapters 7, 9 (Dental Palaeopathology; Palaeopathology of the Skull and Infracranial Skeleton), and by numerous tables of data compiled in Appendices A-D at the end of the book (Bone Element Inventory; Summary and Supplemental Data Tables; Ban Chiang Burial Descriptions; Miscellaneous Human Remains) and Appendix E (Computerized Files of Individual Raw Data) contained in the accompanying compact disc. Among other things, the individual raw data provided in the CD will be especially helpful since “future researchers will be able to address these data with new methods and new questions” repeatedly.

Although the emphasis laid on is relatively less than the descriptive portion, the results of analytical and comparative studies presented in Chapters 4, 11, and 12 (Palaeodemography; Temporal and Spatial Variation; The Ban Chiang Skeletal Series in Regional Perspective) are by no means less significant in contributing to our knowledge on the population history in Southeast Asia. The following is a summary of conclusions on the more important issues given in Chapter 13 (Conclusions):

- 1) In spite of the introduction of intensified rice cultivation during the Middle Period at Ban Chiang, there is no clear evidence for a rapid population expansion, a decline in health, or an increase in interpersonal violence (or warfare) in the skeletal series with the times.
- 2) There is little skeletal evidence for a population replacement or a new, markedly different, group of people at the site.
- 3) The two alternative proposals for the peopling of Southeast Asia, successive migrations and replacements or biological continuity from at least the late Pleistocene, cannot be dismissed so easily. Although the general pattern of skeletal and dental morphology observed in the Ban Chiang series is consistent with that seen in extant peoples of the southern portion of eastern Asia, there are some differences in tooth size, stature, and limb bone proportion. While Ban Chiang is most similar to other prehistoric skeletal series from northeast Thailand, Laos, and Vietnam, connections with bronze age northern Chinese (Anyang), Jomon (Japan) and the recent Ryukyu Islanders are also indicated, suggesting a complex prehistoric biological relationship. There is no indication of connection with Australian and Melanesian groups. The marked contrasts between Ban Chiang and the coastal site of Khok Phanom Di in central Thailand suggest both ecological and genetic differences between the inland and the coastal populations. Human population history in this region cannot be reduced to a simple scenario.

In accordance with the editor's intention, the volume is written in a clear and direct style that is highly readable for nonprofessional readers. Each chapter provides a clear overview of the goals and significance of respective subject, and many of the morphological variations and pathological changes are well illustrated with pictures of high quality. These will be of great help for researchers in other areas,

students of physical anthropology, and general readers. The book may also serve as an excellent reader for graduate course in human skeletal biology.

I fully agree with C. Loring Brace who writes in his foreword to this volume that “this monograph takes its place as an outstanding example of the scholarly contributions that Pietrusewsky has been making.....to our understanding of the nature of the people of the Pacific and their continental Asian neighbors.....” and the authors’ “comprehensive approach to their data set will serve as a model for future skeletal reports in Southeast Asia and beyond.”

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