Bioarchaeology of East Asia

Bioarchaeological Interpretations of the Human Past:
Local, Regional, and Global Perspectives
Bioarchaeology of East Asia

Movement, Contact, Health

Edited by Kate Pechenkina and Marc Oxenham

Foreword by Clark Spencer Larsen

University Press of Florida
Gainesville/Tallahassee/Tampa/Boca Raton
Pensacola/Orlando/Miami/Jacksonville/Pt. Myers/Sarasota
Contents

List of Figures vii
List of Tables xi
Foreword xv
Preface xvii

1. Research on Human Skeletal Biology in East Asia: A Historical Overview 1
   Kate Pechenkina and Marc Oxenham

2. Human Ecology in Continental and Insular East Asia 28
   Kate Pechenkina and Marc Oxenham

Part I. Biological Indicators of Population Histories in East Asia

3. The Population History of China and Mongolia from the Bronze Age to the Medieval Period (2500 BC–AD 1500) 61
   Christine Lee

   Tumen Dashtseveg

5. A Nonmetric Comparative Study of Past and Contemporary Mongolian and Northeast Asian Crania 110
   Erdene Myagmar

6. Tuberculosis and Population Movement across the Sea of Japan from the Neolithic Period to the Eneolithic 125
   Takao Suzuki

7. Biological Connections across the Sea of Japan: A Multivariate Comparison of Ancient and More Modern Crania from Japan, China, Korea, and Southeast Asia 144
   Michael Pietrusewsky

8. Population Dispersal from East Asia into Southeast Asia: Evidence from Cranial and Dental Morphology 179
   Hirofumi Matsumura and Marc Oxenham
Part II. Community Health

9. Conflict and Trauma among Nomadic Pastoralists on China's Northern Frontier 213
   Jacqueline T. Eng and Zhang Quanchao

10. Stresses of Life: A Preliminary Study of Degenerative Joint Disease and Dental Health among Ancient Populations of Inner Asia 246
    Michelle L. Machieck and Jeremy J. Beuch

11. Dental Wear and Oral Health as Indicators of Diet among the Early Qin People: A Case Study from the Xishan Site, Gansu Province 265
    Wei Miao, Wang Tao, Zhao Congcang, Liu Wu, and Wang Changsui

12. Yangshao Oral Health from West to East: Effects of Increasing Complexity and Contacts with Neighbors 288
    Kate Pechenkina, Ma Xiaolin, Fan Wenquan, Wei Dong, and Zhang Quanchao

13. Life on the Frontier: The Paleopathology of Human Remains from the Chinese Early Imperial Taojiazhai Mortuary Site 323
    Zhang Jinglei

14. Bioarchaeological Perspectives on Systemic Stress during the Agricultural Transition in Prehistoric Japan 344
    Daniel H. Temple and Clark Spencer Larsen

15. Change in the Linear Growth of Long Bones with the Adoption of Wet-Rice Agriculture in Japan 368
    Kenji Okazaki

16. Trauma and Infectious Disease in Northern Japan: Okhotsk and Jomon 399
    Marc Oxenham, Hirofumi Matsumura, and Allison Drake

17. A Paleopathological Assessment of the Shihsan-hang Site from Iron Age Taiwan 417
    Liu Chinhsin, John Krigsbaum, Tsang Chenghua, and Liu Yichang

18. Trajectories of Health in Early Farming Communities of East Asia 444
    Kate Pechenkina, Ma Xiaolin, and Fan Wenquan

19. East Asian Bioarchaeology: Major Trends in a Temporally, Genetically, and Eco-Culturally Diverse Region 482
    Marc Oxenham and Kate Pechenkina

List of Contributors 499
Index of Subjects 501
Index of Archaeological Sites and Skeletal Collections 510
Figures

1.1. Pan Qifeng (潘其风), 2008 13
2.1. East Asia  29
3.1. Regional divisions of study area  62
3.2. Bronze Age cluster analysis  78
3.3. Iron Age cluster analysis  79
3.4. Medieval period cluster analysis  79
4.1. Geographic location of comparative Neolithic populations from Asia  89
4.2. Geographic location of studied human remains from Bronze and Early Iron Age of Mongolia  90
4.3. Geographic location of compared populations from Bronze and Early Iron Age of Asia  90
4.4. Geographic location of studied human remains from Xiongnu period of Mongolia  91
4.5. Geographic location of compared populations from Xiongnu period of Asia  91
4.6. Geographic location of studied human remains from Mongolian period of Mongolia  92
4.7. Geographic location of compared medieval and contemporary populations from Asia  93
4.8. Dendrogram showing relationships among Neolithic populations of Asia  98
4.9. Dendrogram showing relationships among Bronze and Early Iron Age populations from Asia  100
4.10. Dendrogram showing relationships among populations from Xiongnu period of Asia  102
4.11. Dendrogram showing relationships among medieval and modern Mongolians as well as populations from North Asia  103
4.12. Dendrogram showing relationships among ancient and contemporary populations of Mongolia  104