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Genetics, Evolution, Variation
Edited by G. Richard Scott and Joel D. Irish
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Cambridge Studies in Biological and Evolutionary Anthropology 66

Anthropological Perspectives on Tooth Morphology

Researchers have long had an interest in dental morphology as a genetic proxy to reconstruct population history. Much interest was fostered by the use of standard plaques and associated descriptions that constitute the Arizona State University Dental Anthropology System, developed by Christy G. Turner II and students. This system has served as the foundation for hundreds of anthropological studies for more than 30 years.

In recognition of this success, this volume brings together some of the world's leading dental morphologists to expand upon the concepts and methods presented in the popular *The Anthropology of Modern Human Teeth* (Cambridge 1997), leading the reader from method to applied research. After a preparatory section on the current knowledge of heritability and gene expression, a series of case studies demonstrate the utility of dental morphological study in both fossil and more recent populations (and individuals), from local to global scales.

G. RICHARD SCOTT is Emeritus Professor of Anthropology, University of Alaska Fairbanks, and is currently Associate Professor and Chair of Anthropology at the University of Nevada Reno. He coauthored *The Anthropology of Modern Human Teeth* with Christy G. Turner II (Cambridge 1997).

JOEL D. IRISH is Professor in the Research Centre in Evolutionary Anthropology and Palaeoecology at Liverpool John Moores University. He has three co-edited volumes – two in the CSBEA series; was associate editor of the *American Journal of Physical Anthropology*; and has more than 60 publications, with an emphasis on dental morphology.

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Acknowledgments

It is not specifically stated in the title, but a key purpose of this volume is to honor Professor Christy G. Turner II. Without him and his research, it is doubtful that the study of dental nonmetric traits would be as important to the field of biological anthropology as it is today; indeed, many chapters herein could not have been written, or would necessarily be quite different in approach, content, and result. One reason, of course, relates to Turner's conception of and contribution to the creation of the Arizona State University Dental Anthropology System (ASUDAS). An extension of the Dahlberg dental plaques, it is considered by researchers around the world to be the "gold standard" for standardized recording of dental morphological features. Further, Turner's application of the ASUDAS sheds new light on the peopling of the Americas, including his idea of three migrations from Northeast Asia (which recently received support from genetic research); he also introduced a research framework emulated by several of the present authors, including the volume editors. On that note, we (GRS and JDI) cannot speak for the others, but we can unreservedly state that Turner significantly influenced our careers and helped make us what we are today (for better or worse!). Additional background on the life and times of Christy G. Turner II is presented within the volume.

An edited volume can only be assembled through the cooperation and good graces of its many contributors. We thank the authors who participated in the AAPA symposium and then provided chapters on their presentations. Several other authors generously filled in blanks for topics not covered in the symposium (including the editors). Our editor at Cambridge University Press, Lynette Talbot, and other Cambridge University Press staff, including Martin Griffiths and Zewdi Tsegai, helped put all the pieces together. We also thank Cambridge University Press in general for their commitment to biological anthropology, reflected in their production of a wide-ranging set of books that cover the gamut of the field from genes and primates to fossil hominids and teeth.

Individually, GRS thanks Christy G. Turner II for pointing him toward teeth in 1968, which, at the time, was no easy task. He also thanks his wife, Cheryl, and boys, Garrett, Geoffrey, and Gunnar, for their constant inspiration.

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