

## YANOMAMA ORAL CONDITION

Admixture cannot be the primary factor in the high frequency of malocclusion, since the Yanomama have been geographically isolated for at least 500 years. Thus, neither reduced chewing nor admixture explain the high frequency of malocclusion. Since tooth crowding seems to account for so much of the malocclusion, future studies are needed. These studies should concentrate on understanding the processes that determine positioning, tooth and jaw size, and the adaptive value of ideal occlusion, if any.

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### BOOK REVIEWS

**FORENSIC ANALYSIS OF THE SKULL.** Edited by Mehmet Yaşar İşcan and Richard P. Helmer. New York: Wiley-Liss. 1993. ISBN 0-471-56078-2. 258 pp. \$64.95.

The primary concern of this book is individual identification based on reconstruction of faces (in three or two dimensions) onto skulls and comparisons (superimposition) of skulls with facial photographs taken during life. Of the editors, İşcan is currently Professor and Chairman of the Department of Anthropology at Florida Atlantic University in Boca Raton, while Helmer is Professor in the Department of Experimental Forensic Medicine at the Institut für Rechtsmedizin in Bonn, Germany. Both editors have considerable experience in the field of forensic anthropology. The contents of the book come primarily from a workshop, "Advances in Skull Identification via Video Superimposition," held on August 3-5, 1988, in Kiel, Germany.

A broad range of subjects is covered, beginning with a historical overview that includes early efforts to identify the skulls, based on portraits or death masks, of Johann Sebastian Bach, Josef Haydn, and Immanuel Kant. Also included are contributions relating to basic analysis of the skull and to implementation of the latest technology in the field. Anyone interested in forensic identification will find much of interest and perhaps some techniques that they can employ in their own work.

Dental anthropologists, however, will be disappointed by the small role played by the dentition in this book. Dental development and tooth wear are important age determinants, as noted in Novotný's chapter on "Morphologic and Osteometric Assessment of Age, Sex, and Race From the Skull," and the incisors, we are told by Fedosyutkin and Nainys in "The Relationship of Skull Morphology to Facial Features", represent a useful landmark for reconstructing the philtrum. In general, however, the teeth are just there, clearly visible on photographs of skulls, but largely ignored, and nearly always hidden behind lips in facial reconstructions.

This book serves as a reminder that although forensic anthropologists and forensic dentists may both work on the same part of the skull with personal identification as a common goal and sometimes even meet in joint session at forensic meetings, they rarely actually work together. Forensic dentistry has long been a major contributor to personal identification through comparison of dental radiographs taken during life with those taken after death, unique dental pathology, visual identification of teeth exposed in photographs based on correspondence of shape, wear, spacing, etc., and bite-mark impressions left at the scene of a crime. Beyond use of the dentition to determine age at death, however, the role of dental anthropology in personal identification is less obvious. Although numerous dental traits have been used to measure biological distance

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among populations, living as well as archaeological, use of these traits in a forensic context to identify race appears to have progressed little beyond the stage of "incisor shoveling equals Asiatic" versus "Carabelli's cusp equals European."

The potential exists for using dental change to reconstruct behavioral patterns based on occupation or other activities, including individual idiosyncracies, that can aid in personal identification. Teeth have already proven to be excellent sources of DNA, and it may even be

possible to identify signatory chemicals from water or soil in teeth to determine where a person lived while his or her teeth were developing. This book could serve as a stimulus to get dental anthropologists interested in forensic work to organize and update their techniques, preferably in cooperation with other researchers interested in the dentition, presenting the results in a volume similar to that edited by İşcan and Helmer, thus making them generally available to the forensic profession.

Readers may note an interesting personal feature on page 64 (Fig. 3). Here the facial development of the first editor can be followed through nine photographs for nearly 40 years of his life, from an 11-year-old youth with prominent ears and a "widow's peak" to the distinguished-looking, bearded colleague we recognize today.

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CULTURE, ECOLOGY AND DENTAL ANTHROPOLOGY. Edited by J.R. Lukacs. Journal of Human Ecology Special Issue No. 2. Delhi: Kamla-Raj Enterprises. 1992. ISBN 81-85264-00-9. 314 pp. Rs 550, US \$60.00.

BIOLOGICAL ADAPTATIONS IN HUMAN DENTITION: AN ODONTOMETRIC STUDY ON LIVING AND ARCHAEOLOGICAL POPULATIONS IN INDIA. By S.R. Walimbe and S.S. Kulkarni. Monograph Series on Biological Anthropology, Volume 1. Deccan College PostGraduate Research Institute: Pune. 1993. 139 pp. Price: US \$15.00 (cloth), US \$14.00 (paper) Plus US \$2.00 surface mail, US \$4.00 first-class mail.

Until recent years, the role of South Asian populations in world prehistory has been neglected. Inattention to the region is surprising, since South Asia is a geographic crossroads between other key areas of study, namely, Southeast Asia, Africa and Eurasia. Two new publications from India provide an excellent overview of the current status of dental anthropological research in this important region of the world.

The main objective of *Culture, Ecology and Dental Anthropology*, edited by JR Lukacs, is "to bring current research in the dental anthropology of South Asians to the attention of a wider audience, while simultaneously bringing to the Indian subcontinent a sample of research in dental anthropology being conducted throughout the world" (p. 2). While the volume contains articles that span a wide geographic area, including Africa, Australia, Central Asia, North Asia, Europe, and North America, the majority of articles concern living and prehistoric populations of South Asia, and how cultural and ecological factors



Mehmet Yaşar İşcan (right), editor of *Forensic Analysis of the Skull* and founding president of the DAA, with Stanley Garn (left) and Susan Loth (center), former editor of DAN, at the AAPA meetings. Photo by A.M. Haeussler.