

BOOK REVIEW

Jane E. Buikstra,¹ Ph.D.

Review of: *Human Osteology & Skeletal Radiology: An Atlas and Guide*

REFERENCE: Matshes EW, Burbridge B, Sher B, Mohamed A, Juurlink BH. Human osteology & skeletal radiology: an atlas and guide. CRC Press, New York, NY, 2004, 433 pp.

The stated goals of this volume include the presentation of bony anatomy through clear and detailed imagery, without introducing overly complex terminology. These goals are more than met, as this unique atlas should be valuable to any student or practitioner requiring a reference work on human skeletal anatomy and radiology. The authors include specialists and educators in human skeletal and dental anatomy and in medical imaging. This atlas speaks well of their experience and expertise.

The volume is designed to be useful at several levels. Medical students are advised to focus upon those sections that describe whole bones and their landmarks. More detailed advice concerning side and fragment identification is also presented for anthropologists and those with forensic applications in mind.

As promised, the volume will be exceedingly useful in teaching human and skeletal anatomy, as it moves gracefully from considerations of whole body regions to whole bones to discussions of internal details through plain film x-rays, CT scans, and MR images. Cranial images include immature, adult, and aged adult examples. Juvenile *os coxae* are also represented, but other immature examples are not.

The complex anatomy of the cranium, for example, progresses from discussions of the full cranium, including multiple external views, to a series of plain x-rays and then a sequence of CT scans that illustrate variation in sinus formation and facilitate relational understanding. Anthropologists will find several, though not all, normal variations in suture and foramen configuration presented as illustrations of variant forms. This concern for variation in normal and abnormal forms increases the volume's utility in both biomed-

ical and anthropological domains. MRI images provide introductory information on associated soft tissue structures.

Following discussions of the skull from anterior, lateral, posterior, superior, and basilar aspects, individual bones are considered. The illustrations (excepting the drawings that introduce individual bone discussions) are of higher quality than those in any human osteology text currently available.

Dental anatomy is introduced in the same manner, beginning with external and internal structures and then moving to identification of individual teeth, without attention to variant forms such as incisor shoveling or variation in molar cusp numbers by tooth. We are told descriptively that in the first mandibular molar, for example, the buccal and lingual grooves do not align with each other while they do in the second. Those who teach standard evolutionary terminology, who recognize world-wide patterns of variation, and who wish to discuss deciduous teeth will want to present supplemental details.

The volume proceeds, first through the axial and then the appendicular skeleton, following a standard sequence: region, individual bones, landmarks, siding, and fragment identification information. A further useful aspect of the volume is its systematic presentation of bones from both sides of the body, rather than choosing one side and requiring the reader to mentally reverse structures and orientations. This is especially useful when considering the small bones of the hands and feet.

In sum, this is a well-designed atlas, useful for the student, the educator, and the practitioner alike. The images, whether photographic, plain x-ray, CT scan, or MRI, are of universal high quality throughout. Educators will doubtless wish to provide additional clinical, forensic, or comparative examples, but their task will be admirably facilitated by the robust osteological and radiological core content presented here.

¹ Leslie Spier Distinguished Professor of Anthropology, University of New Mexico, Albuquerque, NM 87131.