

## BOOK REVIEW

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### A Review of *Human Osteology—A Laboratory and Field Manual* Third Edition

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**REFERENCE:** Bass, W. M., *Human Osteology—A Laboratory and Field Manual*, Third Edition, Special Publication No. 2, Missouri Archaeological Society, 329 Noyes Hall, P.O. Box 958, Columbia, MO 65205, 327 pp., \$15.00.

This is a book that the author should be proud of for its success in North American osteology. This success can be measured by the fact that it is in its third edition and the first two went through their sixth and fourth printings, respectively, since it was first published in 1971. This third edition (unlike the second) is completely revised and updated throughout. It is 40 pages longer and contains 54 tables and 190 figures (11 tables and 32 figures more than the 1979 edition). The font size is larger and the book is available in both spiral and bound forms. While I personally preferred the bound form, my students disagreed.

*Human Osteology* is composed of four chapters beginning with an Introduction, and proceeding to The Skull or Cranium, Postcranial Skeleton, and Human Dentition. There are also two appendices containing a glossary, a listing of the roots of anatomic terms, and instructions for the excavation and treatment of skeletal remains.

The Introduction enumerates the bones by region and defines commonly used terms like "crest," "spine," and so forth. The chapter also illustrates and describes the use of osteometric instruments like the sliding caliper, osteometric board, and so forth. The reader should note that the names of the instruments in Fig. 6 were reversed because the photograph was inverted when transferred from the second edition, but the description was not. The same chapter gives a brief overview of growth and aging and provides several tables and figures to assist age estimation. Sex determination is covered only briefly here since detailed information is presented with specific bones described in later chapters. The last area is the estimation of stature and includes tables for the long bones, primarily of American blacks and whites of both sexes. This simplified approach is very convenient since all one has to do is to measure the bones and match the dimensions to the corresponding stature. Estimation of stature in the subadult is only given cursory attention despite the fact that a large percentage of forensic or other skeletal material involves individuals under 20 years of age.

The Skull chapter covers the osteology of each bone including side identification, location, and similarity to other bones. Following the descriptive osteology, it introduces osteometry. Landmarks, measurements, and generated indices are indicated in detail. Sex determination from cranial morphology is described with supportive figures, but there was no reference to the discriminant function approach. Race determination was also given a separate section and differences between the three major populations were effectively described. This

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time, a number of discriminant function formulae were provided. While two of the measurements necessary for the Giles and Elliot method were not illustrated, this is not much of a problem since the landmarks necessary are well defined in the book.

The Postcranium chapter is nearly twice as long as that on the skull. While it is organized much like the preceding one, the material is more comprehensive. Age and sex related variations are more fully described and illustrated. The statural estimation formulae are presented here for each long bone and combinations thereof. These formulae can yield greater accuracy of estimation because most are based upon multiple regression analysis and include standard errors. However, the formula for black females (p. 157) using the radius bones does not reflect the corrections published by Trotter in 1977.

The greatest concentration of new material is in the section on age estimation. Bass included the latest pubic symphyseal revisions and the recently developed rib phase standards. However, these were rendered practically useless because the ages associated with them were omitted. I strongly suggest that the necessary data be attached as addenda by the publisher when the book is sent out.

The last chapter covers dental anatomy and anomalies. The identification of each tooth is detailed with supplemental illustrations. Odontometric technique is briefly summarized. There are a number of tables showing frequency distributions of, for example, Carabelli's cusp, shovel shaped incisors, missing third molars, and cusp pattern variations. There is one figure on tooth eruption sequence and another on dental wear. There does not seem to be much change in this section.

While Appendix 1 is a useful source of general knowledge, Appendix 2, with its witty cartoons, is a must for every novice who intends to handle skeletal material. It clearly illustrates what to do and what not to do in no uncertain terms. As a matter of fact, I think that Appendix 2 should have been a part of the introduction so the reader would not miss it.

Overall, it is of interest to note that *Human Osteology* evolved to meet the needs of both anthropologists and forensic scientists dealing with the human skeleton. It is by far the most popular book of its genre and remains the best publication on the level for which it is intended. Its reasonable price should increase its popularity even further.