

Book Review

Evolutionary Changes to the Primate Skull and Dentition by C. L. B. LaVelle, D.Sc., Ph.D., M.D.S.; R. P. Shellis, Ph.D., and D. F. G. Poole, Ph.D. Charles C. Thomas, Publisher, Springfield, Ill. 1977.

This 285 page monograph discusses the primate skull, facial skeleton and teeth in great detail, with special emphasis on the interrelationships between the different aspects of the cranium and offers a cohesive interpretation of the morphology of the primate skull as an integrated unit.

The text is divided into five chapters. Chapter one, *Brain Size of Primates*, describes evolutionary changes to the primate brain; metrically defines brain size; and discusses the relationships between endocranial capacity and culture, and between brain size and race. The second chapter focuses on *The Primate Skull* and offers data and analyses of skull form, cranial size, orbits, nasal form, head balance, foramen magnum, mastoid process, cresting, skull dimensions, variation in cranial forms and craniofacial correlations. Chapter three, *The Primate Masticatory System*, discusses the maxilla, mandible, occluso-

facial relationships, temporomandibular joints and dental arch. The *Primate Dentition* is the subject of chapter four, with examination of the control of tooth movement, evolution of hominid tooth forms, rates of evolutionary changes and eruption sequence. The final chapter, *The Calcified Dental Tissues of Primates*, discusses the microscopic anatomy of both human and nonhuman primate dental tissues.

Through the text, the authors have done well in analyzing the evolutionary changes of each part with close regard for the biologic significance of the whole skull. The 79 figures (primarily line drawings and photomicrographs) are helpful adjuncts to the text. The references at the end of each chapter are helpful, although there are relatively few citations of work completed recently.

Evolutionary Changes to the Primate Skull and Dentition, is recommended reading for those orthodontists with special interest in anatomy, physical anthropology, or growth and development. Graduate orthodontic students should certainly be familiar with its contents.

H. Garland Hershey