Biological Science

PRIMATE ANATOMY— OLD WORLD MONKEYS

Primates

Comparative Anatomy and Taxonomy. By W. C. Osman Hill. Vol. 6: Catarrhini, Cercopithecoidea, Subfamily Cercopithecinae. Pp. xxiii + 757 + 50 plates. (Edinburgh: Edinburgh University Press, 1966.) 315s. net.

THE sixth volume of this encyclopaedic compendium on the Primates deals with the first group of Old World monkeys and adds almost another 800 pages to the 2,500 or so in the five volumes published between 1953 and 1962. But the gap of four years since the publication of volume 5 (dealing with the final group of New World monkeys) has resulted in some change in impact in the present volume. Although the general concept and presentation remain the same, the reader is, almost from the first, aware of a higher standard of scholarship than the author had been able to attain during the rapid production of the first five volumes.

In the scheme of Primate classification which Dr. Hill has adopted, the infra-order Catarrhini embraces the Old World monkeys (comprising the super-family Cercopithecoidea) together with the apes and man (these being grouped in a second superfamily Hominoidea). The former comprises two living families (Cercopithecidae and Colobidae) and it is to a single subfamily (Cercopithecinae) of the first of these (comprising the genera *Cercopithecus*, *Miopithecus*, *Allenopithecus* and *Erythrocebus*) that the new volume is principally directed. Introductory sections give historical surveys and generalized accounts of the systematic morphology of the Catarrhini as a whole, and these lead to an overall description of the Old World monkeys (Cercopithecoidea). The volume then proceeds logically with more detailed accounts of individual genera of Cercopithecinae and, to the extent that information is available, for their separate species and sub-species.

As with previous volumes in this series, no reader can fail to be impressed by the energy and enthusiasm which Dr. Hill has put into the production of this work. Much of his information is, of course, already published, but gaps in the literature have been filled wherever possible by extensive personal observation. As a result, the unevenness of existing knowledge is forcefully displayed—a feature which is probably one of the valuable contributions that the series makes to contemporary studies of comparative Primate anatomy.

As with previous volumes, however, there is much that can be criticized. For example, it may be that the method of presentation hinders comparison between genera, families and higher groups, although it may be retaliated that comparison of this kind is not feasible until all the data for the order have been collated and gaps in knowledge filled wherever possible. It may, with equal fairness, be noted that the presentation does not usually show the numbers of specimens on which groups of descriptive observations have been based or the pattern of variability of each feature; often, however, this information does not exist and its accumulation by original observation, even on a small scale, is most laborious. Such labours, fairly quoted in Dr. Osman Hill's volume, are only in their infancy and quantitative data even for the musculo-skeletal system (these forming an essential basis for the analysis of fossil members of the group to whose description a section of some 20 pages of the volume is devoted) are still few.

Although it is now recognized that future progress must stem from investigations employing quantitative techniques, such analyses rest on ideas derived from a framework of classical comparative studies such as those which constitute the substance of Dr. Osman Hill's monographs. It is for the provision of this framework that younger students of primate anatomy will be grateful to him, and it is much to be hoped that his series of monographs will be continued to embrace the remainder of the Old World monkeys and apes.

ERIC H. ASHTON

DISEASE AND MAN IN THE PAST

Human Palaeopathology

Edited by Saul Jarcho. (Proceedings of a Symposium held in Washington, D.C., Jan. 14, 1965, under the auspices of the Subcommittee on Geographic Pathology, National Academy of Sciences—National Research Council.) Pp. xiii + 182. (New Haven and London: Yale University Press, 1966.) \$7.50; 56s. net.

THIS book is the text of papers read and discussions held at a Symposium on Human Palaeopathology arranged by the Subcommittee on Geographic Pathology of the United States National Academy of Sciences and the National Research Council in January 1965. By dividing the work into two parts, an attempt is made to separate the general from the particular. There is an introductory section devoted to the historical development of the subject in North America, to problems in human palaeopathology and to the pathology and palaeopathology of the skeleton. The second section deals with the conclusions which may be drawn from the findings at specific excavation sites together with a discussion of some investigations into the biodynamics of fresh bone and suggestions about their applicability to archaeological material.

The book does not pretend to be a complete survey of the field of human palaeopathology, is disappointing in that it ignores all work carried out in other parts of the world, and, in addition, confines itself to the pathology of the skeleton, with the barest of references to the study of mummified material.

Even so, the historical survey of the development of the discipline in North America by Dr. Jarcho is masterly. So, too, is the contribution by Dr. Lent C. Johnson to the discussion of Dr. Putchar's paper. It is rare to find such a well reasoned argument in favour of a frank return to the principles of Virchowian pathology. There is some exaggeration in the paper by Dr. J. E. Moseley; his contention that the majority of haematological disorders can be diagnosed from roentgenographs alone would scarcely meet with general acceptance among even the most enthusiastic of radiologists in Britain and is, indeed, sharply criticized by Dr. Blumberg and Dr. Kerley.

H. HUGHES

SEX DETERMINATION

Sex Determination

By F. A. E. Crew. Fourth edition, revised. (Methuen's Monographs on Biological Subjects.) Pp. viii + 188. (London: Methuen and Co., Ltd., 1965.) 21s. net.

PROF. CREW's small but deservedly popular book has expanded from 54 to 106 pages of text and from 144 to 960 bibliographic items in passing from the third edition of 1954 to the fourth edition of 1965. The increases are a reflexion of the rapid advances in genetics in the past