

which is intended. The authors are to be congratulated on attempting a task of this magnitude, which if carried to its conclusion will be of inestimable value to mammalian cytogenetics.

JOHN L. HAMERTON

Human Population Cytogenetics. By W. M. Court Brown. North-Holland Research Monographs. *Frontiers of Biology*, Vol. 5. (Pp. xii+107; illustrated+tables. 40s.) Amsterdam: North-Holland Publishing Co. 1967.

It is not often that a series of lectures can be usefully transformed into a book, and it says much for the author of the present volume that he has succeeded in producing a useful as well as a highly readable monograph. This monograph is based on three lectures given by the author last year at the University of London, and summarizes a great deal of the work on population cytogenetics carried out by the author and his colleagues in Edinburgh during the past six years.

The book is divided into four chapters only, the first dealing with chromosome studies on the general population, the second with the identity of the chromatin-positive male, the third presenting data obtained largely by the Edinburgh group on the function, behaviour, and sex-determining role of the Y chromosome; and the final, and this is the most interesting, chapter deals with structural autosomal heterozygosity. A great deal of most useful and interesting data are packed into this volume and the author is to be congratulated on the clarity of his presentation. The book is to be recommended to anyone interested in problems of chromosome variation as seen among ordinary men and women. From this approach, far more than from a study of congenital malformation, are we likely to obtain a real idea of the load of chromosome anomalies carried in the general population.

JOHN L. HAMERTON

Sex Chromosomes. By Ursula Mittwoch. (Pp. ix+306; illustrated. 112s; \$14.0.) New York, London: Academic Press. 1967.

This valuable monograph on the evolution and behaviour of sex chromosomes fulfils two needs. It provides an up-to-date review of sex chromosome mechanisms in different groups of plants and animals, and it places the recent findings on human sex chromosomes and their abnormalities in the correct historical perspective. This approach should increase the value of this book, particularly to investigators and students with little basic knowledge of cytogenetics, as this essential introduction is provided in the first two chapters.

The next three chapters cover the sex chromosomes in plants, drosophila, and lepidoptera. Aberrant sex chromosome mechanisms are covered in Chapter 6. Chapter 7 deals with fishes, amphibia, reptiles, and birds. Man is given a chapter to himself—Chapter 8, and here

all the recent findings on sex chromosome anomalies in man are summarized and reviewed. Chapter 9 deals with the remainder of the mammalian species, while the sex chromatin is considered in Chapter 10. Chapter 11 deals with the thorny problem of hetero-chromatin, and the final chapter deals with the function of the sex chromosomes, and the mechanisms involved in the development of sex differences in man, and experimental sex reversal in various groups.

The author covers an extensive range of subjects and in general does it clearly and concisely. The volume of the work which she has covered makes her approach the only possible one, dealing only with what she considers to be the works most relevant to her subject. The book is well illustrated and can confidently be recommended to students and research workers alike, requiring a critical review of our knowledge of the sex chromosome mechanisms in man and other species. There are, however, a number of minor errors which have crept through the proof-reading stage and which will no doubt be eliminated in the next edition. The production is, in general, of the high standard that we have come to expect from these publishers, and the price is not unreasonable.

JOHN L. HAMERTON

Human Chromosomes. An Illustrated Introduction to Human Cytogenetics. By Audrey Bishop and Patricia Cooke (Pp. 56; illustrated. 8s. 6d.) London: William Heinemann Medical Books. 1966.

Increasing awareness of the significance of the role of cytogenetics in medicine has stimulated a demand for some easily assimilated form of rudimentary knowledge on this subject. In this book Mrs. Bishop and Mrs. Cooke have attempted to answer such a demand. Within the space of 56 pages, which include a glossary and index, a quite astonishingly large amount of basic information is supplied without appearing to be uncomfortably condensed. In addition to simple descriptions of cell division, the identification of chromosomes, varieties of structural and numerical chromosomal anomalies, sex chromatin, and the X chromosome, space is somehow found for brief references to the main clinical features of the better known conditions associated with chromosomal abnormality, a mention of the use of radioactive isotopes and their incorporation in newly synthesized DNA, and numerous illustrations. The latter demonstrate the familiar difficulty of obtaining clear reproductions of secondary constrictions and satellites, and the description of the various stages of blood, bone-marrow, and skin culture without specific detail induces a slight sense of frustration. But such criticisms may be easily overlooked in a consideration of the total information presented to the reader in so small a space. This book will be of use to schools, medical students, and any who wish to obtain a rapid knowledge of the background of the subject.

J. BARTLETT