

until very recently a taxonomical and ontogenetic mess. It seems that their chromosomes are now giving them away.

It would be easy to find fault with this book, but wrong to discourage authors from writing the kind of detailed descriptive accounts now thought to belong to the botany of another age. They are, after all, the foundation of experimental science. It might, however, have improved the value of the book as a textbook if there had been, for the benefit of non-algologists, a brief introduction on the classification of the algae with some account of the life cycles. One could also wish that the editor had been less modest and expanded her short introduction into a discussion of the cytology of the algae as a whole.

B. S. Cox

**Malignant Transformation by Viruses.** Edited by W. H. Kirsten. (Pp. xiv + 177; 39 figures. DM 32. Berlin, Heidelberg, New York: Springer-Verlag. 1966.

This is the 6th volume in this publisher's new series 'Recent Results in Cancer Research', and is the report of a teaching symposium held at the University of Chicago in February 1966. The meeting was planned to deal with three aspects of the subject: (a) characteristics of malignant transformation, (b) genetics and immunology of malignant transformation, and (c) its significance in relation to human neoplasms. The topics, then, are the now familiar ones: cell transformation by Rous sarcoma virus (Macpherson; Temin); polyoma (Dawe *et al.*); mammary tumour virus (Lasfargues; De Ome); virus-specified antigens (Habel; Defendi); hybrid adeno-SV40 viruses (Rapp; Black and Igel); cytological effects (Moorhead *et al.*; Yerganian); virus and human neoplasms (Melnick; Girardi and Jensen; Rabson) and immunological attack (Hilleman)—and, as you can see, the names are familiar too! This is a recommendation for the book's authority but also gives warning to those who follow this literature that much of the contents will also be familiar—one paper, in fact, largely summarizes a similar one (by the same author!) in the *International Journal of Cancer*.

There are two novel features in this book: first, a report (pp. 149–163) of a round-table discussion (Chairman, Huebner) which dealt with questions from the audience especially on the relation of virus-induced tumour specific antigens to malignancy; and second, a summary of the symposium (pp. 164–177) by Sabin. Those unfamiliar with the concepts would do well to begin at this end of the book and then to read the chapters to which his very lucid comments refer. The aim of all this research, with so many different viruses and animals, is, of course, to get nearer to an answer to the real question of which, if any, cancers in man are caused by viruses. Sabin concludes his summary: 'I sometimes ask myself how long should one continue with the search for a possible viral aetiology in human malignancy in the face of repeated frustrations? The only answer that I

can come up with is that as long as there are reasonable questions to ask and reasonable techniques with which to attempt to answer them, so long it is necessary to persist.'

R. J. C. HARRIS

**Heritage from Mendel.** Edited by R. A. Brink and E. D. Styles. (Pp. xii + 455; illustrated + tables. \$10.00 cloth and \$2.95 paper.) Madison, Milwaukee, and London: The University of Wisconsin Press. 1967.

This volume reproduces the papers read at the Mendel Centennial Symposium by the Genetics Society of America in 1965. There were several such commemorative symposia and there have been many similar publications in the past presenting papers by various authors, which review the developments that have emerged from Mendel's basic ideas.

The contributors to this volume well represent those working in all areas of genetics at the present time. Inevitably, many papers examine the present position of the reconciliation between traditional genetic concepts and the new molecular genetics, and they are very readable and thought-provoking. Just as inevitably, some authors have taken the opportunity to review entirely the work of their own groups or departments presenting advances in their subjects as if entirely developed by themselves and by their colleagues.

It is impossible even to mention the authors and contents of the 21 papers presented. Indeed, no one reviewer is competent to consider such diverse theoretical and experimental presentations. However, the readers will be particularly interested in the two papers directly concerned with human genetics. L. L. Cavalli-Sforza writes on human populations, reporting mainly on the work from the Pavia School, and this appears to be the best account available of the scope and direction of the fine population studies being carried out there.

It is difficult to imagine anyone whose views on genetics and medicine are more welcome than those of J. F. Crow, who has such immense knowledge and experience of experimental and theoretical genetics, and who has, in recent years, been so closely associated with human genetics problems. Predictably therefore this chapter is very stimulating. At every stage his commentary on recent advances brings them into relation with experimental genetical findings. He has some wise and eminently sane remarks on genetic counselling and on the genetic consequences of medical advances. It is to be hoped that on some future occasion he will expand his remarks on the 'Contribution of Medicine to Genetics'. It seems to the reviewer that the feed-back of problems identified in medicine and medical genetics has reorientated experimental genetic work to a greater extent than is generally realized or is suggested by Crow's article.

It is difficult to know how far, and to whom to recommend this book. The level of contributions is patchy but many are so excellent that a head of a