
 Book Reviews

Korochkin, L.E.: *Gene Interactions in Development*. Monographs on Theoretical and Applied Genetics, Vol. 4. Berlin, Heidelberg, New York: Springer 1981. 318 pp., 109 figs., Hard bound DM 98.—

This book deals with the genetic side of developmental biology. It starts from the viewpoint that every gene exerts its influence on all traits of an organism, and from the complementary statement that any character depends in some way on all genes in the genome. A consequence of this is a network of most complicate interactions of genes at the different levels of organization in the organism. Gene interaction is implemented by numerous control mechanisms. As far as development and differentiation are concerned, these mechanisms operate principally either within the cell or in the tissue. Accordingly, the author describes gene interactions at the cellular level in one part of the book and those at the tissue level in the other. The many problems dealt with are not only described in general terms but are also exemplified by a number of case studies which have deepened our insight by detailed analysis.

The logical framework of the book is most appealing. The themes are arranged in a more or less cyclic order. The first chapter is on differential gene activity as a basis for cell differentiation. The circle is closed by a final chapter on the organization of systems which control differential gene expression. In each individual chapter the author carefully explains in which way the fundamental concepts are rooted in classical genetics and developmental biology. At the same time, he emphasizes the contribution that molecular biology provides and will provide to the understanding of the basic mechanisms in development.

The result of this all is a comprehensive and coherent treatment which will be of interest for a large number of biologists especially those who look for some order in the tremendous amount of recent knowledge in this rapidly expanding field. A.F. Croes, Nijmegen

Dobzhansky, Th.; Boesiger, E.; Sperlich, D.: *Beiträge zur Evolutionstheorie*. Genetik, Beitrag 10. Aus dem Französischen übersetzt von E. Boesiger. Jena: VEB Fischer 1980. 154 pp. 36 figs. Soft bound DM 31,—.

This book is a translation into German from the French and was originally published in 1968. Written both for the general reader and the specialist, it deals with population genetics, natural selection, sexual selection, the formation of species and with general philosophical and historical aspects of evolutionary theory. At first sight the book looks full of promise because, according to the introduction, the 1968 edition has been brought up to date by the third author and should then contain a clear confrontation between the new, fascinating developments of the theory of evolution and the classical synthetic theory. Furthermore, the introduction promises that the book is very special, because it purports to contain a discussion between the three great traditions of Western thought: the Anglosaxon (Dobzhansky), the French (Boesiger) and the German (Sperlich).

Concerning the latter point, it regrettably must be concluded that even though it is a co-production of the three traditions nothing new emerges. The main disappointment concerns, however, the reviewers first hope. The new developments in evolutionary theory cannot be found in this book and when they are briefly mentioned they are not integrated in the text. Nothing about group selection, selfish genes, evolutionarily stable strategies, the hypercycle, molecular evolution, the progress of Darwin studies, the new philosophy of biology, etc. This book can be read profitably by the historian of biology who wants to read another nicely written exposé of the synthetic theory of evolution. If the reader is interested in the modern theory of evolution, this book is of little value to him.

G.J.M. de Klerk, Nijmegen