

and, in my view a very important omission, no discussion of the complications in the analysis of any selection process arising from the stage at which gene frequencies are measured, recently well discussed by Prout.

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GENETICS. D. J. Cove. Cambridge University Press, 1971. Pp. 216. Hard cover, £3.00; Paperback, £1.40.

The appearance of yet another text for students meeting genetics for the first time is hardly likely to generate much enthusiasm among teachers. However, they would be well advised to consider the merits of the strategy displayed in this approach to the problem.

The basic ideas are introduced by reference to inheritance in haploid organisms and the examples are chosen from *Aspergillus*. There follows an account of inheritance in diploids, chromosome theory, gene mapping and gene action. Succeeding chapters deal with the structure of DNA, especially with reference to mutation, the genetics of bacteria and phage, cytoplasmic inheritance, protein synthesis and the genetic code, intermediary metabolism, the control of gene activities and finally, a brief look at the principal ideas in the genetic control of development. These various topics are dealt with in a succinct and lucid manner and there are two very useful features in the treatment, namely, the printing of technical terms in heavy type when they appear for the first time and also a chapter of problems with the answers at the back of the book.

The Author points out that the text does not pretend to be a comprehensive introduction and it makes no mention, for example, of population genetics or evolution. Every teacher has his own ideas on how best to introduce genetics to students but there is much to be said for keeping an open mind on this and anyone prepared to do so should certainly consider the approach in this text.

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THE ONGOING EVOLUTION OF LATIN AMERICAN POPULATIONS. Francisco M. Salzano (Ed.). Charles C. Thomas, Illinois, February 1971. Pp. 717. \$25.25.

Human population geneticists should be aware of this expensive book, though perhaps few will purchase it unless specifically interested in the complexities of South American anthropology, social or physical. It is a full report of a conference held in Austria in 1969 and is divided into five sections, most of the genetic aspects falling into parts 2, 4 and 5. The rich variety of every aspect of human life on that continent is emphasised on practically every page and conscientious efforts are made to order this vast wealth of information by refining classificatory and semantic practice. The science of social anthropology is, understandably, still at this descriptive stage and, less understandably, has not yet shaken off the political and moral attributes of the writer—of p. 62 for example who hopes “those in charge . . . may avoid the worst consequences of haphazard contact or mistaken policies”. The probing by detached scientists into social phenomena seems to have opened a gate through which a surge of involved sociologists has poured and is

currently threatening (with superficially philanthropic motives) the principle of detachment and objectivity that is one of the corner-stones of the scientific tower. Unfortunately, whatever personal involvement may be detectable in this statement itself is also, in the strict sense, political and not necessarily appropriate in a presumably scientific review.

There are two justifications for making the detailed and expensive population studies described—one is the hope of interpreting the data now, the other is the hope of interpreting them at some time in the future when the data themselves could no longer be collected. As there is likely to be continued evolution of language and of modes of scientific thought, the time of optimal usefulness of such data may not be far in the future—perhaps only a generation. Beyond that time the odds are that the questions being asked of the data will be of such an unexpected form that they can only be answered satisfactorily by data collections addressed to those particular questions. The present collection would then be of marginal value only. There is admittedly so much uncertainty about the future course of human evolutionary theory that a dogmatic assessment of the value or otherwise of this type of contingency data collection would be hazardous. Further, the practicalities place such severe limitations on the quality and type of information that can be garnered that criticism would be presumptuous. All would agree however that a genius would be welcome who would pose answerable questions having some general relevance and preferably requiring only simple measurements for their answering.

Many of the writers, notably Neel and Morton, have considerable insight into the order of complexity into which they have stepped. Only posterity will know whether to assess these pioneering efforts as courageous or foolhardy. Meanwhile, the book makes interesting if exasperatingly inconclusive reading.

Part of the genetic work is aimed at describing the genetic structures of S. American populations. Sometimes this is here done algebraically in terms of simplified models, and tentative steps are made towards estimating some of the parameters in those models. Other authors describe the present variation in genotype frequencies at polymorphic loci and this presumably reflects the genetic structure as well as selection and other factors. There is a long way to go before these observations and others to come can be reconciled to one model of human evolution and used to estimate its parameters. The genetic aspects considered can perhaps be indicated best by listing some of the authors—Frota-Pessoa, Freire-Maia, Morton, Coope and D. F. Roberts, Ainsworth Harrison, Arends, Neel, Cabannes, Layrisse, Salzano himself and Lisker. There are good indices of subjects, authors and populations.

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NATURAL SELECTION IN HUMAN POPULATIONS. Carl Jay Bajema (Ed.). John Wiley and Sons Inc., New York, London, Sydney and Toronto. Full bound, £4.75; Paperback, £2.25.

The search for evidence of selective effects in relation to genetic differences can be approached in a variety of ways. Indirect evidence can, for example,