long remain a classic, whatever the rhythm of accumulation of new data may be.

The book essentially consists of four parts: (1) discoursive chapter; (2) tabular material; (3) reproduction of the 1958 detailed ABO Blood Groups Distribution Tables; and (4) maps. The first 13 chapters provide a general introduction on the application of Mendelian characters to population studies and a detailed review of the history, genetics, technical aspects, and distribution, for each of the various systems (ABO; MNSs; Rhesus; Lutheran and Kell; ABH and Lewis; Duffy, Kidd, Diego, and other blood group systems; plasma proteins; red cell enzymes; hemoglobins; and other biochemical polymorphisms). Chapter 13 is then devoted to gene frequency calculations with an useful addition on computer calculation techniques.

The second group of chapters, 14 through 26, provides a geographic approach, whereby the distribution for the various systems is examined in detail for the main populations of the different areas of the world (Northern and Central Europe; Southern Europe; Near East: Arabs and Jews; North Africa; Afghanistan and the Indian region; South-East Asia; Eastern, Central, and Northern Asia; Australasia; Africa south of the Sahara desert; indigenous peoples of America; migrant and hybrid populations). In chapter 25 a synthesis is attempted, and in chapter 26 some recent discoveries are reported.

The central part of the book is devoted to the tabular presentation of the data with respect to a total of 67 genetic polymorphisms (1-10, major blood groups; 11-35, other blood groups; 36-49, genetic markers in plasma; 50-64, red-cell enzymes; 65-67, other genetic markers). For each table, the following data are usually provided: place, population, authors and numbered reference to bibliography, number of individuals tested, number observed for each phenotype, gene frequencies, chi square or other criterion for the goodness of fit of gene frequencies, and additional information. The tables are followed by a bibliography of 3,179 numbered references.

In the third part of the book, the 1958 ABO Blood Groups Distribution Tables are reproduced. The original maps are however not included, having been completely superseded by the maps given in the final section of the present volume. This includes a total of 36 maps visually showing the distribution of the various systems in the different areas of the world. Out of these, 16 are devoted to the ABO system; 5 to the MNSs system; 5 to the Rhesus system; 2 each to the Kell-Sutter and the Kidd systems; and 1 each to the haptoglobin plasma protein system, the Gc plasma protein system, the 6-phosphogluconate dehydrogenase red-cell isoenzyme system, the phosphoglucomutase red-cell isoenzyme system, the adenylate kinase red-cell isoenzyme system, and the adenosine deaminase red-cell isoenzyme system.

An index section of 40 pages, subdivided into subject, population, and author index, completes this volume, the splendid production of which is just a very suitable aspect for a most fundamental research tool.

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THE PRINCIPLES OF HUMAN BIOCHEMICAL GENETICS

Second Revised and Enlarged Edition

By H. Harris (London). North-Holland / American Elsevier, Amsterdam and New York 1975. Vol. 19* in the series, Frontiers of Biology. Paperback, 15 × 22.5 cm, XVII + 473 pp, illustrated. Price: US $ 20.50.

When Professor Harris' excellent book was first published five years ago, the review that appeared on this journal (Acta Genet. Med. Gemellol. 21: 277) concluded with the following remark: « ... this book may have only one disadvantage: due to the extremely fast accumulation of information ... a new edition might become necessary every new year. » The amount of new information that this second edition contains (although the general structure of the book has remained essentially the same) now comes to indicate that this forecast was basically correct, while at the same time suggesting that a third edition may also soon prove necessary. The book provides a general review of the subject by dealing with the following topics: Gene mutations and single aminoacid substitutions; One gene-one

polypeptide chain; Duplications, deletions, unequal crossovers, chain elongations and other rearrangements; Gene mutations affecting rates of protein synthesis; Quantitative and qualitative variations of enzymes; The inborn errors of metabolism; The blood group substances; Enzyme and protein diversity in human populations; Gene mutations and inherited disease; Disorders due to specific enzyme deficiencies (inborn errors of metabolism); Enzyme and protein polymorphisms.

MOLECULAR POPULATION GENETICS AND EVOLUTION

By Masatoshi Nei (Houston, Texas). North-Holland Publishing Company, Amsterdam-Oxford 1975. Distributed in the USA and Canada by American Elsevier Publishing Company, Inc., New York. Volume 40 in the series, Frontiers of Biology, edited by A. Neuberger and E.L. Tatum. Hard cover with jacket, 16.5 × 24 cm, XIII + 288 pp, numerous tables and illustrations. Price: Dfl. 82.00 (US $ 34.00).

The progress of molecular biology in the last few years influenced population genetics and evolutionary theories to such an extent that a new discipline has resulted, *molecular* population genetics and evolution. Whereas, until recently, only short-term changes in the genetic structure of populations could be taken into account and long-term evolution be simply the object of conjectures, the molecular approach, i.e., the direct study of the genetic material and/or of its immediate products, has brought about many more possibilities and new insights. The classic assumption of a relatively small number of allelic states per locus has come to be modified in favor of a much larger variability. The classic neo-Darwinian theory of evolution has also come to be modified in a number of aspects, and especially with respect to the role of mutation.
These and other fundamental subjects are dealt with by Dr. Nei, who is himself a leader in the development of the new formulations. The monograph devotes two chapters to the mathematical theory of population genetics: natural selection and its effects, and mutant genes in finite populations. Six more chapters discuss empirical data in a rather easy way, that does not necessarily require particular proficiency in mathematics: evolutionary history of life, mutation, genetic variability in natural populations, differentiation of population and speciation, and long-term evolution.

PATH ANALYSIS: A PRIMER

By C.C. Li (Pittsburgh, Pennsylvania, USA). Boxwood Press, Pacific Grove, California, 1975. Hard cover, 14.5 × 22 cm, 346 pp., illustrated. Price: US $ 10.00.

Although natural phenomena usually involve a large number of interconnected variables, physical scientists may usually control and isolate them, and thus apply experimentation on a few variables at a time. The same is true, though to a lesser extent, of biologists. Social scientists and economists also face phenomena where large numbers of variables may interact, but they may hardly control and isolate them, since they largely have to rely on observed events.
Now, a large number of standardized variables in a closed (and formally complete) system may be analyzed by a form of structured linear regression analysis known as the method of path coefficients. Though largely applied in genetics for now 40 years, having been formulated by Sewall Wright in the early twenties, the method is however poorly known in other fields.
The present book provides a comprehensive approach to the subject, in a plain and enjoyable style, without necessarily requiring a specific proficiency in population genetics nor even in statistics. Although especially directed to social scientists and economists, it will no doubt prove of interest to psychologists and of course to biologists and geneticists.

MEIOTIC CONFIGURATIONS

A Source of Information for Estimating Genetic Parameters

By J. Sybenga (Wageningen, The Netherlands). Springer-Verlag, Berlin-Heidelberg-New York 1975. Volume 1 in the series, Monographs on Theoretical and Applied Genetics, edited by R. Frankel, M. Grossmann, H.F. Linskens, D. de Zeeuw. Hard cover, 16.5 × 24.5 cm, X + 251 pp, 64 tables and 65 illustrations. Price: DM 68.00 (US $ 27.90).