technical racial analyses, though they are employed in the chapter on the prehistoric background.

In his assessment of the physical types and their interrelationships, Briggs places much weight on resemblances and differences in the A, B, O blood group percentages of populations; but this is a feature controlled by alleles of a single gene, and alone it is hardly an adequate basis for determining racial affiliations. Although the thesis that genetic features of a population are subject to change through mutation and selection is acknowledged in the introduction, the only explanation offered for resemblances in A, B, O blood group percentages in the racial analyses themselves is in terms of admixture. Thus, Briggs accepts a high incidence of type B blood as suggestive of negro admixture among the Moors, and as "unquestionably" due to negroid admixture among the Chaamba. Furthermore, conjecture as to how miscegenation might have taken place through liaisons of light-skinned aristocrats with their negroid slaves or servants is followed by the supposition that persons higher in the social scale are probably more mixed than those less fortunate, since the former are more likely to keep servants or slaves. But this fanciful suggestion is contradicted by Briggs' statement, later on the same page, that the Zenata, an Arab people in the northern Sahara, are increasingly negroid from top to bottom of the socioeconomic scale!

Quibbling aside, anthropologists will be grateful for this book—certainly the best summary in English to date of the Saharan peoples and their cultures. Many French, German, and English sources have been utilized, and the information has been weighed against the author's own extensive field observations. A fine set of illustrations of typical Saharan living arrangements and portraits of typical physical types completes the volume.

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Polarography. In medicine, biochemistry, and pharmacy. M. Brezina and P. Zuman. Translated from the Czech by S. Wawzonek. Interscience, New York, rev. English ed., 1958. xviii + 862 pp. Illus. $19.50.

It is fitting that an English edition of this treatise should appear shortly before an International Congress of Polarography is to be held in London. It illustrates the broadness of application that this electrochemical method has attained since its discovery 35 years ago by J. Heyrovsky, who has contributed the foreword to the volume. It is to be hoped that editorial reaction will no longer be, "a rather restricted field" or "not the method of choice," and so on.

The early development of polarography was largely confined to Czechoslovakia and was reported in the Collection of Czechoslovak Chemical Communications. The writings of Otto Müller and of Kolthoff and Lingane have now acquainted the American scientist with the literature in general.

Brezina and Zuman collected and digested all the polarographic literature on medicine, biochemistry, and pharmacy, and from their edition (in Czech), S. Wawzonek of the department of chemistry of the State University of Iowa developed the English edition. In the process he extensively enlarged and revised the original. There are 2000 references, twice the number in the Czech edition. The subject matter included in the book is broad enough to make it valuable to any biologist using polarography.

The format of the book is of the fine quality characteristic of the publisher. Unfortunately, the English edition lacks the author index included in the German edition, but a list of references follows each chapter, and a bibliography of monographs and reviews is included at the end of the book. A frontispiece shows J. Heyrovsky with R. Brdicka and the Nejedly polarographic apparatus. There are numerous clear diagrams of apparatus and typical polarograms of substances of biological interest. A collection of data on buffers and the half-wave potentials of compounds occupies 58 pages in part 7. The theoretical aspects of polarography are not developed, but the reader is referred to other sources for this information; only four pages are given to the "Nature of polarographic analysis."

The authors' objective is "to show laboratory workers the possibilities of polarographic methods as well as to provide them with a practical manual in which entire procedures are described in great detail."

The main parts of the book cover the determination of (i) inorganic compounds, (ii) organic compounds, (iii) proteins, (iv) enzymes, and (v) polarographic maxima. In each case the procedures for analysis in biological material are given—for example, for determination of magnesium in serum, epidermis, plants, and water. Examples of quinones considered are phthiocol, juglone, and adrenochrome.

In the section on proteins the work of Brdicka and others on the catalytic waves of protein and their diagnostic value in cancer and various other diseases and the titration of active groups in protein are developed in detail. The chapter on enzymes is but 15 pages long and deals mainly with hemin, catalase, and milk enzymes. The sections on hormones, vitamins, alkaloids, and so forth contain many valuable analytical procedures. The section on *maxima* describes the analysis of many biological fluids by measurement of their maxima suppressive activity; for example, the aqueous humor of the eye has a surface activity of protein 16 times greater than the value for serum protein.

The authors' style is clear and to the point. Enough detail is given with respect to any substance occurring in biological material so that the polarographic analytical possibilities are apparent. The book should be a useful source of information to anyone concerned with experimental biology or medicine in the broadest sense.

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Manuel de Paléontologie Animale. Léon Moret. Masson, Paris, ed. 4, 1958. 771 pp. Illus. Paper, F. 3200.

Like the third edition, published in 1953, this is a reprinting, without changes in the text. New information is incorporated in an "Addendum," which in the present edition amounts to some 34 pages and constitutes an annotated bibliography of recent work, with special emphasis on French contributions.

The book is well designed as an introduction to general paleontology. Nine chapters deal with the principal invertebrate phyla, five with the vertebrates. Illustrations are line drawings and are more numerous than the stated 274 would suggest, for many of the numbered figures are comprised of several parts.

Each section and each chapter begins with a general statement as to classification, morphological terms, and so forth, followed by more detailed reviews of important family groups and, usually, by a discussion of evolutionary trends, phylogeny, and stratigraphic significance. That the author should draw most heavily upon the work of his fellow countrymen in the literature cited and the classifications adopted is perhaps inevitable. For at least one group—the pelecypods known as rudists—this is a happy circumstance: the 20 pages devoted to the pachyodonts form probably the best available modern summary on these complex bivalves. The 62 pages on Foraminifera provide a compact and usable summary. Zoologists, however, may deplore the undifferentiated phyletic group *"Les Vers."* In this connection, also, one must point out that the author has perpetuated a common confusion by placing the annelid genus *Tubulostium* [now generally considered