Book Reviews

An Introduction to Anthropology. Ralph L. Beals and Harry Hoijer, with collab. of Virginia M. Roediger. New York: Macmillan, 1953. 658 pp. Illus. $6.00.

This book is a rare event in the publication of English-language general anthropology texts: not only is it the fruit of joint authorship of the most intensive kind but it is also profusely illustrated with line drawings that, in the authors' words, "set a new standard for the illustration of anthropological textbooks." The body of facts and theories in each of the divisions of anthropology has become so great that it is hazardous for one person to attempt writing about them all; yet anthropologists have made few attempts at joint authorship of introductory texts, although such are clearly needed. Beals and Hoijer have succeeded admirably, indeed uniquely, in their collaboration; the style is uniform, examples are eclectically chosen, and the special interests of neither are revealed in most of the chapters, the exceptions properly being instances in which the subject of a chapter coincides with the major interest of one of the authors, e.g., Hoijer and language, Beals and acculturation. Dr. Roediger, who did the illustrations, has great skill in suppressing extraneous detail and this, combined with her close collaboration with the authors, has resulted in a series of pointed and illuminating figures and maps.

About a third of the book is devoted to human paleontology and physical anthropology, the remainder to cultural anthropology. The former portion contains a strong emphasis on genetics, but the lack of extensive and detailed knowledge of gene geography for humans prevents the authors from presenting a racial classification in other than the conventional phenotype terms. A closer and more convincing connection could have been established between genetics, fossil man, and racial varieties by more explicit reference to genetic processes such as genetic drift and to ecological phenomena that bear on evolution, speciation, and race formation. It would help greatly in dispelling the tendency among students to think teleologically on these matters.

The majority of the chapters treating cultural anthropology follow a conventional arrangement: technology, subsistence techniques, economics, social and political organization, religion, language, the arts, and education. The authors have chosen to emphasize structural and functional approaches in dealing with these topics, rather than the historical, and in so doing reflect a major current in contemporary American anthropology. This emphasis is carried to the degree that prehistory gets very short shrift as a separate topic, although some measure of historical perspective is restored in the chapters on technology, clothing and ornament, etc., by anchoring them in the findings of prehistoric archaeology. The ethnographic examples are presented entirely in the present tense—a convention in anthropology that facilitates comparative studies but one that merits reconsideration if it is to be used in a textbook. Students can be convinced of the utility of this practice for certain studies but rightly question its employment when referring to the buffalo-hunting Crow Indians.

It is a handsome and meaty book, adaptable to several teaching methods. Each chapter is subdivided into captioned sections, and these captions appear in the table of contents. The index is thorough and workable.

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The Chemistry of Synthetic Dyes, Vols. I and II. K. Venkataraman. New York: Academic Press, 1952. 1442 pp. Illus. $29.00 for set of 2 vols.

This two-volume work on synthetic dyes presents a very thorough survey of all the recognized dyes in the classical accepted order which starts with nitroso and terminates with cyanuric and miscellaneous types. Each class of dye is thoroughly discussed with respect to methods of synthesis, application, and reactions. In addition, considerable space is given in the earlier and later parts of these volumes to general discussions on the raw materials and intermediates required, color measurement and description, methods of dye application, analysis of dyestuffs, action of light on dyes and fibers, and the chemical character of substantive dyes.

The text is especially well documented with literature references which are well up to date, and in many cases the discussion shows a critical evaluation of current literature with extraction of ideas and conclusions which had escaped the technical writers of the paper. Although these volumes do not provide laboratory directions for synthesis or application, the applied as well as theoretical worker will find them to be of great assistance in all problems involving the reaction or properties of synthetic dyestuffs.

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X-Ray Crystallographic Technology. André Guinier; trans. by T. L. Tippell; Kathleen Lonsdale, Ed. London: Hilger and Watts, 1952. (U.S. distrib.: Jarrell-Ash, Boston.) 330 pp. Illus. + plates. $9.50.

The original book (Dunod, Paris, [1945]) was called *Radiocristallographie,*[1] a title obviously hard to beat. The English edition includes a foreword by Kathleen Lonsdale, who explains the raison d'être for the translation. The book was so excellent but so poorly put out that she felt her own copy would be frequently consulted and soon fall to pieces. Everyone will agree that the gem was worth a better setting.

[1] Reviewed for the *American Journal of Science* in 1946.

The book is geared to the solution of industrial problems other than crystal structure determinations. After introductory parts on x-rays, crystallography, and diffraction (88 pp.) come the experimental methods (86 pp.) and their application to the study of crystal shape and orientation (27 pp.), identification and strain problems (22 pp.), solid solutions (6 pp.), crystal imperfections (19 pp.), gases, liquids, and amorphous solids (10 pp.), and particle size (11 pp.). Small-angle scattering, Guinier's special field, is treated in the latter chapter. One appendix (19 pp.) devoted to the "know-why" gathers calculations and proofs skipped in the text. Nine appendices (33 pp.) take care of the "know how." With tables of data, references to charts and nets, and tables of interplanar distances, they make the book a self-sufficient working manual.

The translator is clearly no crystallographer. He does not know that Guinier's monocrystal is our single crystal, speaks of "reflections with respect to a plane," says "elementary cell" instead of "primitive cell," calls any row that passes through the origin an "axis," ignores the fact that the crystallographer who first defined the Miller indices was Whewell and not Miller, has trouble telling strain from stress, etc. Otherwise the style is good. Some changes can be noted: lengths are in A instead of kX, several references have been added, and an index is appended. The plates are excellent, their reproduction perfect. The bookmaking is up to the best British standards. Should such improvements induce us to scrap the old battered copy in Guinier's lucid French?

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Electrochemical Data. B. E. Conway. Amsterdam–Houston: Elsevier, 1952. 374 pp. $8.75.

This volume is a logical presentation of fundamental data normally used by practicing electrochemists. For the most part, the author has excluded all process data of an empirical nature, but he has endeavored to cover as completely as possible the fundamental information one would expect in such a book.

The author should be congratulated on the fine presentation of data collected from many different sources. Great care is used to list all original references and wherever possible precisions of the values are indicated. For example, in the table of "Standard Electrode Potentials of the Elements," these potentials are divided into three categories: those whose value is known within a millivolt, a centivolt, and values which are to be considered provisional in nature.

As would be expected with a first edition, there are some minor points that need clarification. The use of symbol *"G"* is somewhat ambiguous since he defines it as "free heat content" and uses it as "free energy." Further, it would be helpful if he specifically stated nomenclature with respect to sign of the electrode potential. In general, however, the author has performed an admirable service in presenting the data in a concise, practical fashion.

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Scientific Book Register

An Introduction to Functional Histology. Geoffrey H. Bourne. Boston: Little, Brown, 1953. 198 pp. Illus. $5.00.

Methods of Mathematical Physics, Vol. I. Trans. from 2nd German ed. R. Courant and D. Hilbert. New York–London: Interscience, 1953. 561 pp. $9.50.

Progress in Organic Chemistry, Vol. II. J. W. Cook, Ed. New York: Academic; London: Butterworths, 1953. 212 pp. $7.00.

Films in Psychiatry, Psychology and Mental Health. Adolf Nichtenhauser, Marie L. Coleman, and David S. Ruhe. New York: Health Education Council, 1953. 269 pp. + plates. $6.00.

Nationalism and Social Communication. An inquiry into the foundations of nationality. Karl W. Deutsch. Cambridge, Mass.: M.I.T. Technology Press; New York: Wiley, 1953. 292 pp. Illus. $5.00.

The Logic of Modern Science. J. R. Kantor. Bloomington, Ind.: Principia Press, 1953. 359 pp. $6.00.

In Spite of: A Philosophy for Everyman. John Cowper Powys. New York: Philosophical Library, 1953. 312 pp. $5.00.

Industrial Specifications. E. H. Mac Niece. New York: Wiley; London: Chapman & Hall, 1953. 158 pp. Illus. $4.50.

Les Groupes Sanguins Chez L'Homme: Étude Sérologique et Génétique. Jacques Ruffié. Paris: Masson, 1953. 207 pp. 1.200 fr.

Automatic Digital Calculators. Andrew D. Booth and Kathleen H. V. Booth. New York: Academic Press; London: Butterworths, 1953. 231 pp. Illus. $6.00.

Laboratory Manual for General Botany, Part I. Robert W. Hoshaw, Sanford S. Tepfer, and Barbara J. Peebles. 14 exercises, introduction and glossary. Illus. $2.00. ***Laboratory Manual for General Botany,*** Part II. Robert W. Hoshaw and Sanford S. Tepfer. 14 exercises, introduction and glossary. Illus. $2.00. Minneapolis, Minn.: Burgess, 1953.

Managing Your Coronary. William A. Brams. Philadelphia: Lippincott, 1953. 158 pp. Illus. $2.95.

Experiments and Problems for College Chemistry. 5th ed. J. E. Belcher and J. C. Colbert. New York: Appleton-Century-Crofts, 1953. 214 pp. Illus. $2.50.

Science in Progress, 8th Series. George A. Baitsell, Ed. New Haven, Conn.: Yale Univ. Press, 1953. 285 pp. Illus. $6.00.

Research Operations in Industry. Papers delivered at the Columbia University conferences on industrial research. David B. Hertz, Ed. New York: King's Crown Press, Columbia Univ., 1953. 453 pp. $8.50.

Orchids of Guatemala. Fieldiana: Botany, Vol. 26, No. 2. Oakes Ames and Donovan Stewart Correll. Chicago: Chicago Natural History Museum, 1953. 727 pp. Illus. $5.00; $4.00, paper.

General Botany: Laboratory Manual. John W. Hall. Minneapolis, Minn.: Burgess, 1953. 218 pp. Illus. $3.50.