

Book Reviews

Research in Photosynthesis. Papers and discussions presented at the Gatlinburg Conference, October 25–29, 1955, sponsored by the Committee on Photobiology of the National Academy of Sciences–National Research Council and supported by the National Science Foundation. H. Graffron, C. S. French, R. Livingston, E. I. Rabinowitch, B. L. Strehler, and N. E. Tolbert, Eds. Interscience, New York, 1957. xiv + 524 pp. Illus. \$12.

The National Science Foundation has now sponsored two general meetings on photosynthesis, both held in Gatlinburg, Tennessee. The first one, in November 1952, covered all aspects of the subject, but unfortunately the proceedings of that first conference were never collected and published in any single place. In this volume are not only the 67 papers which were presented at the second conference on photosynthesis but also transcriptions of a major portion of the discussions which took place there; thus the volume provides for the world at large not only a record of the conference in the form of the formal papers but something of the atmosphere of the conference, which comes through in the transcribed discussion.

This second Gatlinburg conference was not intended to encompass all aspects of the subject of photosynthesis. It was supposed to be limited to papers and discussion relating to the primary photochemical act itself. Since knowledge on this particular aspect is, as yet, limited to an enormous collection of empirical observations, together with some half-dozen theories which encompass one or another area of these empirical observations, it is clear that no volume can present any coherent story beyond this. The editors of this collection, however, have done a remarkably good job of arranging the wide variety of contributions. They have done this under six principal headings, as follows: (i) "Absorption, fluorescence, luminescence and photochemistry of pigments *in vitro*"; (ii) "Absorption, scattering, fluorescence, luminescence and primary photochemical processes *in vivo*"; (iii) "Possible role of cytochromes"; (iv) "Dark reactions"; (v) "Kinetics, transients and induction phenomena"; (vi)

"Formation and condition of chlorophyll in the living cell."

It is clear that all workers in any aspect of the field of photosynthesis will require this collection for their reference shelves, regardless of the specific area of their work. It not only gives a general impression of the status of our knowledge of the particular area, as of October 1955, but it will be of great value as a key to an enormous variety of observations to be found in the literature.

One cannot but be tempted to compare this publication with the record of a similar conference, also a second one, which was held in the Soviet Union 21–26 Jan. 1957. All that is available to us as yet as a record of this "Second All-Union Conference on Photosynthesis" is a set of abstracts. An examination of these abstracts reveals a breadth of activity, even in the limited area of the primary photochemical process, at least as great as that to be found in the present volume.

One looks forward with considerable anticipation to the records of the third conferences.

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The Pharmacologic Principles of Medical Practice. John C. Krantz, Jr., and C. Jelleff Carr. Williams and Wilkins, Baltimore, Md., ed. 4, 1958. xi + 1313 pp. Illus. \$14.

The fourth edition of this well-known textbook is substantially larger than the first edition, which appeared in 1949. This is true in spite of the effective manner in which the authors have deleted discussion of various drugs as they have come to be used less frequently; the increase in the size of the volume reflects the growing content of this discipline.

Two new chapters have been added, one on "Use of drugs in the treatment of mental illness" and the other on "The local use of drugs in the ear, eye, nose, and throat." Other chapters, especially those on the treatment of bacterial diseases and of hypertension, arthritis, and diabetes, have been expanded appreciably.

This book is for all students of the

medical sciences. It is less comprehensive than some texts commonly employed, but the material has been well chosen, and many summary tables help to reduce the length. Most structural formulae are given, and illustrations are frequent. Historical developments in the field are presented along with portraits of important investigators. The chapter on the response of cells to drugs is particularly interesting to the professional pharmacologist, and the attempts to explain drug actions in terms of intracellular enzyme reactions provides a nice correlation of pharmacology with biochemistry.

The references at the end of each chapter are well selected, although the authors make no attempt to be comprehensive. Most of the drug preparations that are officially listed in the United States Pharmacopeia and the British Pharmacopeia are given, with the recommended dosages.

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Geography in the Twentieth Century. A study of growth, fields, techniques, aims and trends. Griffith Taylor, Ed. Philosophical Library, New York; Methuen, London, ed. 3, 1957. xi + 674 pp. Illus. + plates. \$10.

This work, now in its third edition, offers an imposing array of essays on various aspects of contemporary geography, by 22 authors. Unfortunately, it fails of being "a study of growth, fields, techniques, aims, and trends" in any comprehensive sense. What it does provide is a mixture of the good and the bad in contemporary geographic thought.

The book is divided into three parts. The first, "Evolution of Geography and its Philosophic Basis," includes useful chapters on 19th-century geography and on French, German, and West Slavic contributions to the field. Unaccountably, the English-speaking world is not discussed. An excellent paper by G. Tatham on the environmentalist-possibilist controversy, pointing out the fallacies of environmentalism, concludes the section. The second part, although entitled "The Environment as a Factor," deals with such diversified topics as geomorphology, climatology, land use surveys, exploration, and the tropics, and by no means defines "the environment as a factor"—if, indeed, this is capable of definition. Karl J. Pelzer's chapter on "Geography and the tropics" is perhaps the high point in the book. The third section, "Special Fields of Geography," samples a number of fields, providing rather spotty coverage of the discipline.

The third edition differs from the preceding one in few respects. A reprint of