

A Fundamental Survey of the Moon

By Dr. Ralph B. Baldwin. (McGraw-Hill Series in Undergraduate Astronomy.) Pp. viii+149+8 plates. (New York: McGraw-Hill Book Company, Inc.; Maidenhead: McGraw-Hill Publishing Company, Ltd., 1965.) 4.95 dollars; 40s.

BALDWIN has undoubtedly succeeded in presenting, in this work, a concise and readable account of a good deal of our knowledge of the Moon; as an introductory work for those not particularly specializing in lunar physics, it suffers little from the lack of mathematical analysis in certain places. However, the complete lack of mention in the text of the now well-established principles of lunar tectonics is regrettable. It is true that if the references given in the preface are consulted most of the existing points of view will be encountered. Readers who do not do this, however, will be left ignorant of much important recent work.

In particular, some of the conclusions drawn about the nature of the maria and marial features will, almost certainly, have to be modified in the future as a result of the work of Dobar and others on the physical features of igneous structures caused by the inherent lunar surface conditions, which receives only passing reference in the text. The concluding statement that "The 136-year-old argument (concerning the origin of the craters) is over", based only on the evidence of the *Ranger* photographs, is far too emphatic.

The errors in this book are usually those of omission as indicated here, and many of these may be intentional to keep the length of the work to a minimum; but attention should be directed to the paragraph on faults in Chapter 6 in which it is specifically, and incorrectly, stated that there is no evidence for lunar strike-slip faulting. Printing errors are virtually non-existent, but it is unfortunate that the reference chart and contour map given are in astronomical and astronomical convention respectively, making comparison unnecessarily tedious.

L. WILSON

Basic Bacteriology

Its Biological and Chemical Background. By Dr. Carl Lamanna and Prof. M. Frank Mallette. Third edition. Pp. xiv+1001. (Baltimore, Md.: The Williams and Wilkins Company, 1965. Distributed in the U.K. by E. and S. Livingstone, Ltd., Edinburgh.) 140s.

DR. CARL LAMANNA and Prof. M. F. Mallette, in the third edition of their *Basic Bacteriology: Its Biological and Chemical Background*, have aimed at bridging the gap between the elementary text-book and the advanced monograph. Chapters are included on the taxonomy, microscopy and staining, structure, growth, nutrition and metabolism of bacteria with a final, somewhat fragmentary account of chemical sterilization. The book retains its rather excessive coverage of physical and chemical principles which are not invariably related to bacteriological problems. Since the publication of the second edition, the developments in bacteriology have necessitated considerable revision and amplification, and genetics, protein synthesis, enzymology, photosynthesis and permeability have received greatest reappraisal. Unfortunately, but perhaps understandably in such a large work, the revision has been uneven. Thus, the discussion of numerical taxonomy, while adequate, is not exemplified and classifications derived from such analysis have not been compared with those based on the *a priori* hierarchy of characters. Such omissions are made the more conspicuous by the amount of space devoted to speculations on bacterial origins and phylogeny. Chapter 6 examines the structure of bacteria: here the presentation tends to be disjointed, sometimes confused, for example, the discussion of the cytoplasmic membrane and membranous organelles; or restricted, for example, the fine structure and division of nucleoids are not considered.

More than one-third of the book is concerned with bacterial metabolism and variation, subjects which are treated with thoroughness and care, although inorganic nitrogen and lipid metabolism deserve a fuller exposition. The authors have omitted text references deliberately but provide extensive bibliographies and a good index. There are very few errors of fact and immense care has been taken with proof reading. This book will remain an important source of information on bacteria.

A. T. BULL

Lexicon Allergologicum

Allergologie Wörterbuch. Herausgegeben von Knud Wilken-Jensen. (Allergology Dictionary.) Pp. xii+119. (London and New York: Pergamon Press; Leipzig: Johann Ambrosius Barth Verlag, 1965.) n.p.

WITH increasing interest in the clinical aspects of immunology, the amount of allergological literature has been growing fast. The European Academy of Allergology has played a leading part in facilitating communication in this field and now presents a six-language dictionary of terms most frequently used in the practice of allergy.

This dictionary is in three parts. The first part consists of an alphabetical list of 142 such terms, with language equivalents in German, English, French, Italian, Russian and Spanish. In the second part, 64 of these terms are explained in the form of brief sentences; these are given in six languages and will minimize errors in communication between practising allergists. The third part consists of language equivalents of 100 common allergens, in alphabetical order, with Latin terms where appropriate. The whole volume is of a convenient size for work in clinic and library.

Recent advances in immunology may soon permit more precise descriptions of allergological phenomena. That the European Academy of Allergology has been able to publish this lexicon is surely a pointer towards the eventual standardization of nomenclature in this field.

D. C. DUMONDE

Ultrastructural Plant Cytology

With an Introduction to Molecular Biology. By Prof. A. Frey-Wyssling and Prof. K. Mühlethaler. Pp. x+377. (Amsterdam, London and New York: Elsevier Publishing Company, 1965.) 130s.

ULTRASTRUCTURAL *Plant Cytology* sets out the personal views and the results of the extensive work of the authors on the fine structure of plant cells. The approach is direct, almost dogmatic, but this makes the text very readable and simplifies many complex and difficult concepts.

The first section of the book deals with the elementary organic and physical chemistry of large molecules and leads up to the modern theoretical discussions of the molecular basis of heredity and protein structure and synthesis. Rather surprisingly, no mention is made of the possible mechanisms of the control of cell differentiation and very little attention is paid to this very important branch of cytological research where work on plant material has made very significant contributions.

The second section describes the ultrastructure of the plant cell and attempts to relate these investigations to the account of the chemistry and molecular biology given in the first section of the book. The authors and their colleagues have contributed much to the subject matter of this section and a large amount of the factual information is taken from their many publications in the field. As a consequence, it is superbly illustrated with electron micrographs and with pictures from the new freeze-etch technique developed at the Zurich laboratories.

It is a good though expensive text-book for a course in cell biology.

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