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finds that important topics and controversial issues are omitted or treated superficially; that a rosy hue is attached to all family life; that magical or fictional solutions are offered for family problems; and that the family life of different cultures within the United States is ignored.

Seven recommendations for improving textbooks and teaching about families are presented in the third chapter. This is followed by a discussion of the feasibility of implementing the recommendations. This discussion is the weakest portion of the book: it is too brief, and it naively assumes that community criticism of the discussion of controversial topics in the classroom can be largely reduced if only the teacher takes a straightforward attitude toward the quest of knowledge.

The fourth and fifth chapters deal with the teaching of values and of controversial topics in the classroom. The proper division of responsibility between the home and the school is discussed, and a careful, factual approach is advocated. Examples of how textbooks should cover controversial topics are presented in the sixth chapter. Excellent presentations are made of the topics of premarital sexual intercourse, abortion, and mixed marriage.

The appendices include a list of supplementary materials for family-life courses and a discussion of the dis-

honesty that exists in the revision of most family-life textbooks.

This book is a must for those who teach or write books about family living. It should be of interest to biology teachers as well.

Thomas P. Evans
Oregon State University
Corvallis

Microtechniques

BIOLOGICAL TECHNIQUES IN ELECTRON MICROSCOPY, by Clinton J. Dawes. Barnes & Noble, Inc., New York. 1971. 207 p. \$4.95 (softback).

This clear, concise, and complete book covers all aspects of tissue preparation, including fixation, dehydration, embedding, ultramicrotomy, staining, and replication. Of particular value are the chapters on fixatives and embedding media: they present formulas and procedures for using a variety of buffers and fixatives, and they discuss the epoxy resins, methacrylates, and polystyrene plastics. Additionally, the author points out the subtle differences in the preparation of plant, animal, and bacterial cells with respect to fixation and buffers. The last chapter gives several useful tips on photographic techniques, including the selection of films and papers. Appendices list commercial suppliers of chemicals and equipment; describe enzyme-localization techniques; explain the chemistry of epoxy resins; offer a sample preparation-schedule; and list general references.

The book is a welcome addition to the literature of electron microscopy. It should serve as a useful one-source laboratory manual.

Ronald P. Hathaway
Colorado College
Colorado Springs

Textbooks

GENERAL BOTANY, by Wilhelm Nultsch. 1971. Academic Press, New York. 452 p. \$10.00.

This book, which first appeared in German in 1968 under the title *Allgemeine Botanik*, appears to be dated because of textual omissions. I feel few teachers of general botany would select this as their sole textbook. However, the book does have several strong points and, with supplementary materials, may be of use to some.

The book is appropriate for the beginning botany student in college. It includes a fairly detailed introduction to the chemistry of botany, a modern treatment of cytology, a classical discussion of anatomy and morphology supplemented by a chapter on development, several strong chapters on physiology, a disjointed treatment of genet-

ics, and an extraneous but delightful section on the movement of plants. In a practice that seems to be becoming regrettably common, the morphology of plant groups is discussed in one place but their reproduction is reviewed elsewhere.

The greatest weakness of the book seemed to be acknowledged by the author when he appended three summaries. Taking fewer than 13 pages, these deal with taxonomy, ecology, and evolution. No biology student will be satisfied with such cursory treatment. Nultsch justifies the omission of a substantial section on ecology by saying "ecology is such a timely and rapidly changing field, it will be left to the individual instructor and student to develop and explore such phases as they choose." But the same statement could be made about many of the subjects that are adequately treated. I find the omission of a serious treatment of evolution to be most grievous.

The photos and line drawings are excellent. The text is lucid, thanks in part to the translation editor, James E. Gunkel.

In spite of its omissions the book contains a great deal of exciting, well-

(Continued on p. 110)



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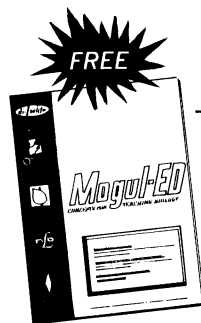
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presented material. A reading of it can benefit both the instructor and the botany student, but it cannot stand alone as a textbook.

Jane H. Bock
University of Colorado
Boulder

THE STUDY OF BIOLOGY, by Jeffrey J. W. Baker and Garland E. Allen. 2nd ed., 1971. Addison-Wesley Publishing Co., Reading, Mass. 991 p. \$11.50.

This book provides a good general coverage of biology. No particular field seems to be emphasized more than others, and several fields that are ignored or treated lightly in many other general-biology textbooks are included, such as chapters dealing with animal behavior, plant physiology, and the evolution of both plants and animals. The treatment of the subject matter is nontraditional: it emphasizes the logic of scientific investigation. The authors make very good use of data gathered from recently published research material. The introductory chapters deal with scientific method, the application of logic in science experi-

mentation, analyzing and interpreting data, and other practical matters in biology (and science in general). Most of the examples and graphs included in this book should be quite helpful to the student. In the table of contents the chapters are subdivided for easy reference. There is a glossary; an index; several appendices; and, at the end of each chapter, very good review questions and a list of suggested readings.

Several features may cause problems for some instructors and students. First, there is more material than can be covered in a two-semester course. However, this provides the instructor with a variety of material from which to choose. Next, parts of the introductory chapters and of several other chapters seem too detailed and advanced for the general-biology student. Several diagrams suffer from the same fault. Finally, the authors' vocabulary may prove too difficult for some students to understand.

This book could be used most effectively in general-biology courses for college majors in biology or related fields and in advanced-biology courses