



Fig. 2. Give the boys a microscope and something to do and look at and there is genuine interest immediately. This is a medium distance shot made with the camera slightly above the petri dish level to show the duckweed.



Fig. 3. To get the picture, the camera is brought in closer on the boys and lowered slightly to place more emphasis on the boy's faces and expressions. Close-ups often add interest as well as show additional subject detail.

Book Reviews

All unsigned reviews were made by Editor.

Human Biology

THE BODY, Alan E. Nourse, 200 pp., Time-Life Science Library, New York, 1966.

This volume in a remarkable series concerns the human body, and written as it is by a physician, has a distinctly medical flavor. Also, as usual, the illustrations are superb. There is a great deal of attention to anatomy with the treatments of muscles, bones, and the heart in fine detail. The digestive system is charted as some gigantic monopoly game. The last "picture essay" is on medical education.

From this, the flavor of the book is apparent. It is medically oriented, splendid illustrations in full color, with some attention to cellular biology, but with chief emphasis on an interestingly written account of the human body and some of its aberrations.

LABORATORY MANUAL OF STRUCTURE AND FUNCTION IN MAN, Stanley W. Jacob and Clarice Ashworth Francone, 219 pp., \$3.50, W. B. Saunders Company, Philadelphia, 1966.

This anatomy and physiology laboratory manual by Jacob and Francone, with its neat design and compact format, appears at first

glance to be an abridged or limited effort. However, a closer scrutiny reveals that they have included a wide range of exercises and activities suitable for shorter courses as well as longer ones. There are seventeen chapters organized principally on the basis of the organ systems, except for a few on the usual generalizations of cytology and histology and fluids and electrolytes. Each chapter is then subdivided into one to twelve discrete laboratory activities—some being true "experiments," others being what could be more accurately termed supervised study sessions. For example, the chapter on skin has one exercise whereas the chapters on the circulatory and nervous systems have ten and twelve exercises, respectively. While some instructors would consider it lamentable that certain "experiments" are performed mainly with the aid of reference texts, charts, preserved specimens, and models, they should be reminded that there are eighty-five "experiments" to choose among. Moreover, certain schools will not be equipped to perform all the exercises with all their variations and can make good use of the activities not requiring elaborate equipment or extraordinary materials. Admittedly, this laudable feature of the book might be a drawback to those institutions with much modern equipment and new facilities; they would require a publication with more and greater emphasis on technical procedures.

Aside from subject matter content, other features include a table of time allotted to each "experiment," a list of supply sources, a "materials needed" list, a much-too-limited appendix on metric equivalents and chemical solutions, and handy perforated pages for student reports. What is not included, but what would be a welcome improvement, is a more detailed and complete table of contents, or else an index to facilitate rapid location of particular exercises from among the many and varied choices.

Raymond E. Henzlik
Ball State University
Muncie, Indiana

LIVING TISSUES, R. L. Holmes, 142 pp., \$2.95, Pergamon Press, New York, 1965.

This book is intended to serve as an introductory text for the study of structure and function of tissues and is to be supplemented by a fuller textbook of histology. Although the book claims to be concerned with functional aspects of living tissues, very little is presented which can be considered functional. In fact, about 25% of the text is devoted to a very general description of how tissues are prepared for histological study. This section is not sufficient to be used as a guide in tissue preparation.

In a brief text of this sort, selection of materials is inevitable and therefore it contains rather arbitrary inclusions and exclusions. For example: very little is found on the blood and lymphatic tissues. What is included, however, is clearly and accurately covered.

In general, although there is much that is interesting and enlightening in this text, it will not be helpful to one who lacks a basic understanding of histology. Therefore, this book will not serve as an adequate introduction to a course in histology.

Pierson J. Van Alten
University of Illinois Medical School
Chicago Circle, Illinois

NERVE, MUSCLE AND SYNAPSE, Bernard Katz, 193 pp., \$2.25, McGraw-Hill Publishing Company, 1966.

This small paperback by Bernard Katz is the second volume published in the McGraw-Hill series in "The New Biology" edited by Professor George Wald of Harvard University. Professor Katz, a leading authority in the field of neurophysiology, intended this book for the college student in introductory biology. However, the material presented is much more than introductory; it is a rather extensive though compact presentation of the development of

current concepts on the physiological interaction and structural relationship of nerves and muscles. The author deals with topics of neuromuscular organization, the electrical phenomena involved, initiation and transmission of impulses across the cell membrane and neuronal synapses.

The book is valuable to the serious student in biology who may contemplate a career in neurophysiology. Senior biologists in less related specialties may also find the book useful in filling in gaps in their knowledge on this subject. Several tables and graphs taken from original sources help in summarizing data; over 150 references are included.

Edith K. MacRae
University of Illinois at the
Medical Center
Chicago, Illinois

HOMEOSTASIS, L. L. Langley, 114 pp., \$1.95, Reinhold Book Division, New York, 1965.

A paperback with the most lucid description of the concept of homeostasis this reviewer has seen. The author is in the NIH but he has a splendid gift of exposition which should put him in the classroom immediately.

The concept of homeostasis is introduced by a fascinating historical treatment and a description of the principal ramifications. Various aspects are described in detail: regulation of temperature, weight, blood pressure, respiratory, fluid, hormonal balance, and movement. The final chapter concerns speculations as to how the principle may be applied to other areas, such as population, buffers and circadian rhythms, and a most interesting treatment it is.

The book is illustrated and told in a most interesting manner. An excellent treatment.

HUMAN BODY COMPOSITION, Josef Brozek, Ed., 311 pp., \$12.00, Pergamon Press, Long Island City, New York, 1966.

For over 100 years, there have been attempts to assess the tissue constituents of the human body. Not until 1942, however, was a breakthrough made which has opened the way for techniques having greater accuracy and more sophistication to be brought to bear on this aspect of human biology. One consequence of this is the formation of a Society for the Study of Human Biology in 1958; another consequence is yearly symposia, informal at first but now annual under the auspices of the Society. This book is Volume 7 of a conference held in London in 1963.

By bringing symposiasts from a wide range of disciplines, laboratories, and countries, the presentation is enriched in presenting technical