volume of four parts per year. $27.50. Started, March, 1966.

The masthead of this journal indicates that it is "devoted to all aspects of the study of cells." The initial issue bears out this pledge, although perhaps more devotedly to structure than function. It is good to see this continuation of the *Quarterly Journal of Microscopical Science* and it will certainly find willing contributors in the field of cell biology. Already, the first part is some 144 pages long, not including the numerous and excellent photographic plates. Because the journal will include research on all types of cells and their functions, it would probably be amont the first group of biological journals subscribed to by any college or biology department library. The editorial board, whose members all are affiliated with institutions in Great Britain, is distinguished.

W. Ann Reynolds
University of Illinois
Chicago, Illinois 60680

SCIENCE AND CANCER, Michael B. Shimkin, 137 pp., $.60, Public Health Service Publication No. 1162, U. S. Government Printing Office, 1964.

Written by the retired head of the National Cancer Institute, the book shows clearly the author's gift for, and experience in, science writing. Done simply with no illustrations except graphs, the story of cancer research is simply and interestingly told. It is flatly aimed at the reader who has had high school biology.

Each chapter takes up a pertinent aspect of the search for more knowledge about cancer and the beginning of each chapter leads off with an interesting-catching item. The book is rich in metaphors and analogies indicating the author's real knowledge of the teaching art.

It is a highly recommended book for the secondary school library, especially the biology classroom, and for the cost it is the best survey of our state of knowledge.

THE EMERGENCE OF BIOLOGY ORGANIZATION, Henry Quastler, 65 pp., $3.75, Yale University Press, New Haven, Connecticut, 1964.

This book represents a preliminary attempt to develop a theory of biological organization from the point of view of the evolution of living systems. The approach is somewhat empirical in spite of the theoretical nature of the treatment. One can not approach biological problems meaningfully without taking into account the basic facts of chemistry and physics, but Dr. Quastler has used some rather simple mathematical principles to help define the problems involved. The basic principles of information theory are used throughout the book, but the mathematical aspects should not discourage even those with a minimum of formal training in math. Most of the concepts are developed in a way that can be appreciated without the use of mathematical formulas. On the other hand for those who like to think in mathematical terms, he has provided enough of the basic facts of the chemistry of macromolecules to make the treatment readable by those not familiar with many of the developments in molecular biology.

Chapter 1 provides a discussion of the information content and constraints on living systems on the assumption that nucleic acid is the tape in which the bits of information are stored. The basic characteristics of information storage, readout and feedback are outlined as these concepts apply to living systems.

Chapter 2 deals with the structure of proteins in relation to function. Interactions of proteins with other molecules, which can usually be shown to depend on a small part of the macromolecule, is referred to as the "Signature Principle." Characteristics and requirements of such molecules are considered.

In Chapter 3 are outlined the present concepts concerning the role of genes and their interactions which result in self regulated systems. Genetic regulatory mechanisms which involve the regulation of RNA synthesis in used as a basis for this discussion.

J. Herbert Taylor
Institute of Molecular Biophysics
Florida State University

IN THE BEGINNING: A SURVEY OF MODERN EMBRYOLOGY, Jeffrey J. W. Baker, 65 pp., 20c, American Education Publications, Columbus, Ohio, 1964.

A small pamphlet and one of a series written for the junior and senior high school student. The survey of embryology attempted here is in journalistic style but replete with information and readability which will make it appropriate for the supplementary reading of all students or the special student. Fully illustrated.

Early sections deal with historical ideas of development and evolution and other theories. Then there is an account of techniques used in embryology. While developmental steps are described, almost one-third of the pamphlet is devoted to the description of our present knowledge of regeneration, organizers, and the classic experiments.

A valuable little pamphlet for the student.

ULTRASONIC ENERGY, Biological Investigations and Medical Applications, Elizabeth Kelly, Ed., 387 pp., $12.50, University of Illinois Press, Urbana, 1965.