In many ways the title of this book is misleading. It is not a review of the field indicated by the title, nor is it a treatise on the subject—instead, it is an up-to-date and full review of the contributions to that field by Harkins and his co-workers. It represents Harkins' final evaluation of a lifelong project. Contributions by other investigators are generally referred to or discussed insofar as they illuminate or provide necessary background for understanding or evaluating his work. Hence, classic theoretical contributions on surface tension phenomena by Laplace, Kelvin, Verschaffelt, and Guggenheim are ignored, and basic experimental contributions by Langmuir, Adam, Rideal, Joly, Sugden, Bangham, McBain, and Bowden have either been omitted or given casual mention. The omissions are too numerous to count; as examples, nothing is said of the contributions of Bartell, Powney, McCleod, Trillat, Sebba and Briscoe, and Wenzel.

This volume is not suitable for use as a textbook nor as a general reference for technical workers. It is an incomplete exposition of the subject, its style and organization make it difficult to read, and no one but an expert could read it without getting a most incorrect historical perspective of the subject. Unquestionably, it will be a valuable reference to investigators of surface films and their properties as the best single source of information on the work of Harkins and his many able students and associates. Most important of all, the book is a monument to a scientist whose enthusiasm, meticulous care, and skill in the study of the behavior of surfaces and molecular films brought him world fame.

W. A. Zisman
Chemistry Division, Naval Research Laboratory

Progress in Biophysics and Biophysical Chemistry, Vol. 2. J. A. V. Butler and J. T. Randall, Eds. New York: Academic Press; London: Pergamon Press, 1951. 323 pp. $8.00.

International Review of Cytology. Vol. I. Prepared under the auspices of the International Society for Cell Biology. G. H. Bourne and J. F. Danielli, Eds. New York: Academic Press, 1952. 368 pp. $7.80.

There is a world of difference between the two volumes recently published by the Academic Press: *Progress in Biophysics* is exceedingly good, but the *International Review of Cytology* is disappointing. This contrast seems strange when it is realized that biophysics is a relatively narrow category of techniques, whereas cell biology is an extremely broad field underlying almost all paths of biological study. Subject matter, however, is not responsible for the disparity in quality between the two volumes—success and failure would appear to rest largely with the editors of the respective reviews.

From their preface to Volume 1 of *Progress in Biophysics,* it is apparent that Butler and Randall approached their task modestly—and properly so. Contributors were unceremoniously instructed to write critical reviews "which may be read with profit by many who are not experts and which will provide scientists with a general survey of recent work and ideas." In reading Volume 2 it is possible at once to sense the effort that the editors have expended and to appreciate the ably written and properly guided contributions. Of the eight constituent articles two may prove difficult to many biologists. Both Jordan's review of the "Physicochemical Properties of the Nucleic Acids" and Wyke's review of the "Biophysical Aspects of Nervous Function" are, to the nonspecialist, difficult reading. The remaining six, however, are well composed. "Birefringence of Cytoplasm and Cell Membranes," a critical account by Swann and Mitchison, is brief and to the point. Preston has contributed an orderly and understandable treatment of cellulose structure. Pirenne's discussion of the quantum physics of vision is unusually lucid; physical data are explained in terms that are understandable and stimulating to biologists in general. Gray has provided a good general account of the biological action of ionizing radiations, and Wyckoff has ably discussed the electron microscopy of plant and animal viruses. Sinclair and Lamerton's review of the physical principles underlying the use of radioactive isotopes will almost certainly prove valuable to all those concerned—and they are many.

In the preface to the *International Review of Cytology* one learns that the editors are conscious of the broad nature of their field and that they harbor pretentious aims, but one of the principal duties of editorship—to delineate the area of survey with some measure of specificity—is passed off with the vague proposal to keep the scope of the series "as wide as possible." So fine an aim might be welcomed in the case of fields that are loosely defined, but cell biology can easily be conceived to include reviews of enzymology, protein chemistry, biophysics, etc. If it is the objective of the editors to embrace all these allied fields, then this reviewer considers the project nonsensical; if the editors have a more limited and useful plan it remains thus far unknown to the reader, for the first volume reflects little if any planning. It reads like the collected works of a diversified research institute, not like a book designed to serve the needs of cell biologists. It would serve no purpose to appraise each contribution singly, especially since it is the critic's opinion that the deficiencies of many of the articles are in large measure attributable to the editors. A few examples will therefore suffice.

The review of nuclear reproduction by C. L. Huskins is a babel of ideas that warranted presentation at the 1950 Congress of Cell Biology, but not in a solid and reasoned review of progress in the field. Goldacre's account of "The Folding and Unfolding of Protein Molecules as a Basis of Osmotic Work" is an expanded speculation based on a correlation between protoplasmic streaming and dye absorption. Brevity would have done the idea justice, and an enlarged consideration of other approaches to osmotic work would have done the readers a more bountiful service. To be sure, the merits of the articles as such are not in question; what is

here being brought to judgment is the propriety of such articles in a volume designed to serve as a central source of guidance to students of cell biology.

The same lack of direction that runs through the treatment of many subjects is apparent in the choice of topics. Kidder's article on nutritional requirements of *Tetrahymena* would better serve science by appearing elsewhere. Rothschild's brief account of spermatozoan behavior in the neighborhood of eggs certainly adds to the table of contents, but somewhere the editors ought to have drawn a line between what belongs in a current journal and what deserves the status of a review. A striking example is the selection of "The Histochemistry of Esterases" (Gomori) as a topic for review when the fundamental issues of histochemistry, which currently beg for discussion, are neglected. There is hardly a serious student of biology who would not eagerly search for some critical account of this whole field. If the editors are not aware, then they should be, of the multitude of errors that have crept into the literature and that have been uncritically used by many cell biologists. In the face of this, one cannot help wondering with what degree of attention and perspective the editors undertook the important—and admittedly difficult—task of editing a review volume on cell biology.

Happily, the volume contains a number of good reviews. Bell has written a fine account of the application of freezing and drying techniques in cytology. Hershey's review of the reproduction of bacteriophage is beautifully written, and Fankhauser has provided an excellent discussion of nucleo-cytoplasmic relations in amphibian development. Yet the book as a whole is disappointing, and unless future volumes are vastly improved, the series will never serve the purpose for which it was launched.

HERBERT STERN
Rockefeller Institute for Medical Research, New York

Association Affairs

AAAS Symposia at the St. Louis Meeting

Raymond L. Taylor
Assistant Administrative Secretary, AAAS

CHARACTERISTICALLY, AAAS symposia explore relatively neglected areas of scientific inquiry, constitute up-to-date surveys of knowledge in particular fields, or are concerned with the interrelations of science and human welfare. Such programs are significant and valuable because they focus attention upon critical areas, summarize the present status of current research, and provide viewpoints from which to direct further research. In general, these programs originate in the minds of the officers of the eighteen sections and subsections of the AAAS and are developed by them or by others whom they deputize as program chairmen. Often the sectional symposia are concerned with interdisciplinary problems and are sponsored by two or more sections; participating societies also may collaborate. If the potential demand warrants it, the papers are gathered together and published by the Association as symposium volumes.

In recent years the practice has become well established of arranging several symposia of especially wide interest or timeliness for each annual meeting. The responsibility for developing these general symposia, sponsored by the Association as a whole, rests upon a Symposium Committee, appointed each year by the president of the Association. Upon occasion, a proposed sectional program may be chosen to be developed as a general symposium; more commonly, the Symposium Committee, which represents a variety of scientific fields itself, plans and arranges these general sessions. The committee may invoke the aid of consultants and appoint others to implement the general symposia.

The 1952 Symposium Committee consists of Detlev W. Bronk, president of The Johns Hopkins University and of the AAAS (*chairman*); William A. Albrecht, chairman, Department of Soils, University of Missouri; Edgar Anderson, Engelmann professor of botany, Washington University, and assistant director, Missouri Botanical Garden; Arthur H. Compton, chancellor, Washington University; Edward A. Doisy, Sr., director, Department of Biochemistry, Saint Louis University School of Medicine; Charles Allen Thomas, president, Monsanto Chemical Company, and general chairman of the St. Louis Meeting; Carl Tolman, dean, Graduate School of Arts and Sciences, and chairman, Department of Geology, Washington University; John W. Tukey, Department of Mathematics, Princeton University; Clyde E. Williams, director, Battelle Memorial Institute; Conway Zirkle, Department of Botany, University of Pennsylvania; and Raymond L. Taylor (*secretary*).

Of the general symposia at this year's meeting, "Disaster Recovery" was originally proposed by the AAAS Section M Committee; "The Nation's Nutrition" was suggested by Edward A. Doisy, Sr.; and "Applications of the Theory of Games" was conceived and organized by John W. Tukey.

General Symposia

I. Disaster Recovery. Saturday morning and afternoon, Dec. 27. Arranged by Howard A. Meyerhoff.

Part 1. The Nature of Disasters

Lloyd V. Berkner, president, Associated Universities, Inc., *Presiding*