

ing crystalline imperfections directly." The methods of direct observation include etching, internal decoration (precipitation of foreign matter in dislocations), diffraction contrast in electron microscopy, x-ray diffraction "topography" (a picture of the crystal taken, for example, along one of its x-ray reflections), and study of irregularities in field ion microscopy. The results of work in all of these fields have recently been reported in the literature.

Those working in the field are presumably familiar with this literature, so the book will probably have its greatest appeal to scientists in related fields. Such readers will be particularly interested in the first three survey chapters, which outline the methods and results obtained by the methods of optical and electron microscopy, x-ray diffraction topography, and field ion microscopy. The main body of the book comprises a series of individual papers that reveal the present state of the art.

It is a curious fact that the study of dislocations has not been carried forward by crystallographers, but by metallurgists and solid-state physicists, who have studied the crystals with which they are most familiar, particularly the metals and alkali halides. Conclusions of general validity probably cannot be made from the study of such trivial patterns of atoms. Apparently little work has been undertaken on dislocations in complex structures. In this book, however, Amelinckx and Delavignette report on dislocations in layer structure, and they include the silicates talc and mica.

This book not only provides a picture of the progress that has been made in the study of dislocations, but it also highlights the fields which have been left uncultivated. For example, what is the status of work on dislocations in crystals with nontrivial structures, such as the feldspars, pyroxenes, and tourmaline. What is the relation of crystal habit—in other than layer structures—to screw dislocations? Is lineage structure related to dislocations? These are obvious directions in which the study of dislocations must be extended.

This book will awaken the crystallographer to these questions. Other scientists will be enlightened if they happen to encounter the book in a library, but they will probably not care to buy it themselves for \$21.50.

M. J. BUERGER

*Laboratory of Crystallography,
Massachusetts Institute of Technology*

Notes

Gerontology

Students of gerontology will find little new information in **Structural Aspects of Ageing** (Geoffrey H. Bourne, Ed. Pitman, London; Hafner, New York, 1962. 419 pp. \$20), but they should nevertheless welcome the volume as a useful compendium. Unfortunately, a disturbing number of chapters appear, as the editor's preface candidly states, to have been collected "only for the sake of demonstrating the gaps in our knowledge." The chapters concerned with age-associated changes in joints, blood vessels, cartilage and bone, and teeth and oral tissues should, however, prove to be of particular value, especially to workers in clinical fields. Those workers have too long neglected the significance of findings that are here comprehensively discussed.

W. BONDAREFF

*U.S. Public Health Service Hospital,
Baltimore, Maryland*

New Books

Biological and Medical Sciences

Advances in Applied Microbiology. vol. 4. Wayne W. Umbreit, Ed. Academic Press, New York, 1962. 261 pp. Illus. \$10.

Advances in Pharmacology. vol. 1. Silvio Garattini and Parkhurst A. Shore, Eds. Academic Press, New York, 1962. 485 pp. Illus. \$13.

Bacterial Plant Diseases in India. G. Rangaswami. Asia Publishing House, New York, 1962 (order from Taplinger, New York). 175 pp. Illus. \$5.

Barley and Malt. Biology, biochemistry, technology. A. H. Cook, Ed. Academic Press, New York, 1962. 754 pp. Illus. \$21.

Cells. Their structure and function. E. H. Mercer. Doubleday, Garden City, N.Y., 1962. 145 pp. Illus. Paper, \$0.95.

Cucurbits. Botany, cultivation, and utilization. Thomas W. Whitaker and Glen N. Davis. Hill, London; Interscience (Wiley), New York, 1962. 262 pp. Illus. \$11.50.

Experiments in Genetics with Drosophila. Monroe W. Strickberger. Wiley, New York, 1962. 153 pp. Illus. Paper, \$3.95.

The Exploitation of Natural Animal Populations. A symposium of the British Ecological Society, held at Durham in March 1960. E. D. Le Cren and M. W. Holdgate, Eds. Wiley, New York, 1962. 413 pp. Illus. \$10.75.

Neurosecretion. Proceedings of Third International Symposium held in the University of Bristol in September 1961. H. Heller and R. B. Clark, Eds. Academic Press, New York, 1962. 470 pp. Illus. \$14.50.

Economics and the Social Sciences

The Cold War, Retrospect and Prospect. Frederick L. Schuman. Louisiana State Univ. Press, Baton Rouge, 1962. 119 pp. \$3.50.

Economic Development and Social Change in South India. T. S. Epstein. Univ. of Manchester Press, Manchester, England; Humanities Press, New York, 1962. 369 pp. \$8.50.

The Forest People. Colin M. Turnbull. Doubleday, Garden City, N.Y., 1962. 317 pp. Illus. Paper, \$1.25.

Great Britain, Geographical Essays. J. B. Mitchell, Ed. Cambridge Univ. Press, New York, 1962. 624 pp. Illus. \$7.50.

Marriage in Tribal Societies. Meyer Fortes, Ed. Cambridge Univ. Press, New York, 1962. 164 pp. \$4.75.

Mayapan, Yucatan, Mexico. Publ. 619. H. E. D. Pollock, Ralph L. Roys, T. Proskouriakoff, and A. Ledyard Smith. Carnegie Institution of Washington, Washington, D.C., 1962. 447 pp. Plates and maps. Illus. Paper, \$9; cloth, \$9.50.

The Navaho. Clyde Kluckhohn and Dorothea Leighton. Doubleday, Garden City, N.Y., 1962 (© 1946). 355 pp. Illus. Paper, \$1.45.

People and Politics. An analysis of the American political system. Lewis A. Froman, Jr. Prentice-Hall, Englewood Cliffs, N.J., 1962. 124 pp. Paper, \$2.25.

Politics of the Kula Ring. An analysis of the findings of Bronislaw Malinowski. J. P. Singh Uberoi. Univ. of Manchester Press, Manchester, England, 1962 (order from Humanities Press, New York). 177 pp. Map. Illus. \$5.

Psychoanalysis and Civilization. Paul Rosenfelds. Libra, New York, 1962. 222 pp. Illus. \$3.95.

A Treatise on Insanity. Ph. Pinel. Translated from the French by D. D. Davis. Hafner, New York, 1962 (facsimile of the London edition, 1806). 393 pp. Paper, \$2.75.

Mathematics, Physical Sciences and Engineering

Basic Electrotechnics. B. L. Goodlet. Arnold, London, 1962 (order from St. Martin's Press, New York). 408 pp. Illus. \$8.

Concise Physics. For ancillary degree students. R. B. Morrison. Arnold, London, 1962 (order from St. Martin's Press, New York). 571 pp. Illus. \$8.

Elastic Analysis of Shells by Electronic Analogy. Charles Bryan Wilby and Norman West Bellamy. Arnold, London, 1962 (order from St. Martin's Press, New York). 64 pp. Illus. \$6.50.

Electromagnetics and Fluid Dynamics of Gaseous Plasma. Proceedings of a symposium held in April 1961. Jerome Fox, Ed. Polytechnic Institute of Brooklyn Press and Interscience (Wiley), New York, 1962. 492 pp. Illus. \$8.

Elementary Real Analysis. H. G. Eggleston. Cambridge Univ. Press, New York, 1962. 289 pp. Illus. \$6.50.

Gas-Liquid Chromatography. Theory and practice. Stephen Dal Nogare and Richard S. Juvet, Jr. Interscience (Wiley), New York, 1962. 468 pp. Illus. \$13.95.