

perimental analysis of possible coevolution in ant-plant-homopteran associations, taking advantage of the range of breeding systems in both plants and Homoptera and particularly of the existence of clones and biotypes. (iv) Mite-plant interactions and analogies with ant-plant interactions.

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Phosphorus Deposits

Geology of Sedimentary Phosphates. MAURICE SLANSKY. Elsevier, New York, 1986. 210 pp., illus. \$45. Translated, with revisions, from the French edition (Orleans, 1986) by Peter Cooper.

Phosphorus is an essential component of every living cell. Its value as a fertilizer was recognized almost 200 years ago, and its consumption, mainly for that purpose, has been increasing steadily—from 3.5 million tons in 1900, for example, to nearly 140 million tons in 1981. It heads the list of the nonrenewable resources for which there is no known or conceivable substitute. The search for new phosphate deposits has justifiably accelerated during the last 30 years, fortunately with considerable success, thanks to expanding knowledge of their occurrence and origin.

In his *Geology of Sedimentary Phosphates* Maurice Slansky of the French Bureau de Recherches Géologiques et Minières succeeds well in his objective of providing a state-of-the-art review of knowledge of sedimentary phosphate deposits, which are the source of most phosphate production.

The coverage of the subject is comprehensive, extending from the mineralogy, petrography, chemistry, and origin of the deposits to prospecting, mining, beneficiation, and manufacturing methods and production and resource statistics. Considerable attention is given to the role of organic matter in the formation of phosphorite deposits. The book is well illustrated and has a 24-page bibliography.

Slansky devotes several pages to the petrographic classification of sedimentary phosphates. He observes that "phosphates" is not a good term for rocks with a predominant phosphate content because "it belongs strictly to the chemical field" and concludes that "it should not be used," proposing instead the previously little-used term "phosphatite." One is reminded of Brigham Young's confession that "as Latter Day

Saints we are opposed to the use of tobacco but as Mormons we use quite a bit," for not only is "phosphate" used as a noun in the title and numerous other places but the index lists 14 uses as an adjective modifying terms ranging from "deposits," "grain," and "particle" to "supply."

Slansky's book is a fine summary of a growing literature, but two others are worth noting also. One is G. N. Baturin's *Phosphorites on the Sea Floor* published in 1983 by Elsevier and the other is the compilation *World Phosphate Rock Resources* being published by the Cambridge University Press under the editorship of A. J. G. Notholt, R. P. Sheldon, and D. F. Davidson.

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Some Other Books of Interest

The Political Economy of Science and Technology. NORMAN CLARK. Blackwell, New York, 1985. xii, 257 pp., illus. \$39.95; paper, \$14.95.

This volume, stemming from lectures given to students at the Science Policy Research Unit at the University of Sussex, is intended as a broad introduction to economic analysis as an approach to science and technology policy. It was prompted, the author writes, by "a growing feeling that while economic analysis has a lot to offer in this context, the discipline itself has become ever more remote from the public gaze [as it pursues] a narrow goal of mathematical rigour . . . to the exclusion of reality and understanding" and that "some redress was therefore called for." The volume consists of nine "relatively self-contained" chapters, on science and technology policy as a field of study; economic organization and technological change; the macroeconomy (including the "science system" or "science infrastructure"); the microeconomy; economic theory and technological change (describing classical, neoclassical, Keynesian, and Schumpeterian views); modern developments in economic thought about technological innovation; the nature of underdevelopment; the relation of science and technology to development; and contemporary issues of science and technology policy. Each chapter is accompanied by a bibliographic note identifying relevant general works and by a section of references and other notes. In addition the volume as a whole has a select bibliography of some 175 items. An index is also included.—K.L.

"For the Welfare of Mankind." The Commonwealth Fund and American Medicine. A. MCGEE HARVEY and SUSAN L. ABRAMS. Johns Hopkins University Press, Baltimore, 1986. xiv, 697 pp., illus. \$32.50.

The Commonwealth Fund was established in 1918 by the family of Stephen V. Harkness, one of the founders of the Standard Oil Company. Charged with doing "something for the welfare of mankind," the Fund has focused its efforts on matters relating to health, supporting enterprises in child guidance, child health, psychiatry, and medical education and research and also rural and community health services. This history of the Fund, based on archival material and interviews with participants as well as published sources, describes its activities from its founding up to the present. The account is structured around the tenures of the Fund's chief staff officers and presidents and includes much detail about the inner workings of the Fund and about the enterprises supported, with attention also to other institutions and organizations involved and to the broader milieu. Brief final sections discuss the Fund's programs for the 1980's and relate the history of its book publishing program. The volume concludes with 12 appendices giving particulars of awards made by the Fund, a section of notes and references, and name and subject indexes.—K.L.

Books Received

American Professors. A National Resource Imperiled. Howard R. Bowen and Jack H. Schuster. Oxford University Press, New York, 1986. xiv, 322 pp., illus. \$24.95.

Analysis and Integration of Behavioral Units. Travis Thompson and Michael D. Zeiler, Eds. Erlbaum, Hillsdale, NJ, 1986. xxx, 367 pp., illus. \$32.50. From a conference, Minneapolis, MN, 1984.

The Analysis of Extraterrestrial Materials. Isidore Adler. Wiley-Interscience, New York, 1986. xxii, 346 pp., illus. \$55. Chemical Analysis, vol. 81.

Anasazi. Ancient People of the Rock. Donald G. Pike. Photographs by David Muench. Harmony (Crown), New York, 1986. 191 pp. Paper, \$12.95. Reprint, 1974 ed.

An Annotated Checklist of Marine Invertebrates in the Cold Temperate Northeast Pacific. W. C. Austin. Khoyatan Marine Laboratory, Cowichan Bay, British Columbia, 1985. 3 vols. xiv, 682 pp. Spiral bound, C\$42.

Antianxiety Agents. Joel E. Berger, Ed. Wiley-Interscience, New York, 1986. xii, 164 pp., illus. \$65. Chemistry and Pharmacology of Drugs, vol. 6.

Aquatic Microbiology. G. Rheinheimer. 3rd ed. Wiley-Interscience, New York, 1986. 257 pp., illus. \$32.95. Translated from the German edition (Jena, DDR, 1985).

Arms Control Verification. The Technologies That Make It Possible. Kosta Tsipis, David W. Hafemeister, and Penny Janeway, Eds. Published in cooperation with the Program in Science and Technology for International Security, Massachusetts Institute of Technology by Pergamon-Brassey's, New York, 1986. xvi, 419 pp., illus. \$34.95. From a conference, Cambridge, MA, Feb. 1984.

Aromaticity. Peter J. Garrett. Wiley-Interscience,

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