

oblique slip. A more theoretical paper by Rodgers shows how double pull-apart basin systems develop where offstepping strike-slip faults overlap by more than the width of offstep. Howell *et al.* usefully summarize the sedimentological effects of the California transition from a subduction to a strike-slip regime during the late Tertiary.

The volume does not provide, as its title implies it will, a thorough view of sedimentation in oblique-slip zones. Of 13 papers only four address themselves specifically to clear examples of oblique-slip-related basins, and there is a preponderance of papers on compressional regimes in New Zealand, although the latter are geometrically related to the Alpine Fault System. Nevertheless, for those, like the reviewer, who are interested in regional tectonics, this is a most important reference volume.

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Waste Disposal

Ocean Dumping of Industrial Wastes. Papers from a symposium, West Greenwich, R.I., Oct. 1978. BOSTWICK H. KETCHUM, DANA R. KESTER, and P. KILHO PARK, Eds. Plenum, 1981. x, 526 pp., illus. \$59.50. *Marine Science*, vol. 12.

The Report on Ocean Dumping issued in 1970 by the U.S. Council on Environmental Quality concluded that there was a need for a national policy regarding ocean dumping. The conclusion was based on ocean dumping activity in the United States, which had increased rapidly since the end of World War II. Since 1970 a series of laws passed by the U. S. Congress has reversed that trend. At the same time, it has become apparent that there are many real, or perceived, problems with waste disposal on land. During the past three years, several marine scientists have argued that the oceans can be used in some cases for disposal of waste with few ill effects on other desired uses of the oceans. At the very least, they argue, we should reexamine the scientific basis for a ban on ocean dumping within the context of all waste-disposal options: land, sea, air, and recycling. The present situation has been summarized and a series of recommendations set forth in a Special Report to the President of the United States and the Congress ("The Role of the Ocean in a Waste Management Strategy," Janu-

ary 1981) by the National Advisory Committee on Oceans and Atmosphere (NA-COA).

Thus *Ocean Dumping of Industrial Wastes* has been published at a propitious time. Even though the content mainly reflects the state of research and policy as of 1978, the volume provides a good reference for much of the background of present approaches to ocean dumping of wastes. The focus of the discussion and the source of most of the examples are experience in the United States, with some comments pertaining to the United Kingdom and international policy. Prospective readers should realize that the volume was not intended as, nor is it, a comprehensive review of the subject.

The book has five main sections. The introductory section, which contains four papers, begins with a concise, well-written account by P. K. Park and T. P. O'Connor of historical and international developments as they relate to the perspective of the United States. The essence of the main issues is presented in an 18-line introductory poem by Momiji.

The second section, Physical Aspects of Ocean Dumping, contains four very good papers describing applications of physical oceanography to ocean dumping of barged wastes and two papers about remote sensing. I found this section to have the best balance between theory and practice.

The third section, Chemical Aspects of Ocean Dumping, contains a mixture of good papers, for instance one on transition and heavy metals associated with acid-iron waste disposal by D. R. Kester *et al.*, and a few cursory papers containing data with little interpretation. A paper by K. S. Kamlet on disposal of organochlorine wastes by incineration at sea is an interesting, lucid description of its topic from a legal and policy viewpoint but does not contain any chemistry as such.

The fourth section, Biological Aspects of Ocean Dumping, is a conglomerate, with papers about aspects of microbiology, phytoplankton, zooplankton, fish, and histology and physiology. It would have been helpful to have an overview that related these studies and placed them in the broader context of response of marine organisms, populations, communities, and ecosystems to stress.

The final section, Future Prospects of Ocean Dumping, consists of a paper by Kester, Ketchum, and Park that relates the physical, chemical, and biological aspects dealt with in the preceding sections and provides an assessment of

present knowledge and future needs. The authors anticipate the issues set forth in the NACOA report.

I recommend selective reading of appropriate sections of this useful volume for all those enmeshed in the how, where, and for-how-long hassles of waste disposal—whether their current interest is land, sea, or air.

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Books Received

Advances in X-Ray Analysis. Vol. 24. Proceedings of a conference, Denver, Aug. 1980. Deanne K. Smith, Charles S. Barrett, Donald E. Leyden, and Paul K. Predecki, Eds. Plenum, New York, 1981. xx, 428 pp., illus. \$49.50.

Advice and Planning. Martin H. Krieger. Temple University Press, Philadelphia, 1981. xiv, 242 pp. \$18.95.

Aging Sensory Systems and Perception. John F. Corso. Praeger, New York, 1981. xviii, 284 pp., illus. \$29.95.

Air Pollution. Its Origin and Control. Kenneth Wark and Cecil F. Warner. Harper and Row, New York, ed. 2, 1981. xviii, 526 pp., illus. \$30.50.

Alfred Waterhouse and the Natural History Museum. Mark Girouard. Yale University Press, New Haven, Conn., and British Museum (Natural History), London, 1981. 64 pp., illus. \$12.95.

The Biochemistry of the Carotenoids. Vol. 1, Plants. T. W. Goodwin. Chapman and Hall, London, ed. 2, 1981 (U.S. distributor, Methuen, New York). xviii, 378 pp., illus. \$69.

Biofeedback Strategies for Interpersonal Relationships. Dorelle Markley Heisel. Gordon and Breach, New York, 1981. x, 192 pp., illus. Paper, \$19.50.

Biological Cycles. Papers from a symposium, Dallas, Mar. 1980. Ronald W. Estabrook and Paul Srere, Eds. Academic Press, New York, 1981. xxii, 574 pp., illus. \$59.50. *Current Topics in Cellular Regulation*, vol. 18.

A Book of Problems in Ordinary Differential Equations. M. L. Krasnov, A. I. Kiselyov, and G. I. Makarendo. Translated from the Russian edition (1978) by Vladimir Shokurov. Mir, Moscow, 1981 (U.S. distributor, Imported Publications, Chicago). 336 pp., illus. \$6.80.

A Brief Course of Higher Mathematics. V. A. Kudryavtsev and B. P. Demidovich. Translated from the Russian edition (1978) by Leonid Levant. Mir, Moscow, 1981 (U.S. distributor, Imported Publications, Chicago). 694 pp., illus. \$16.

Carbon-13 NMR Spectral Problems. Robert B. Bates and William A. Beavers. Humana, Clifton, N.J., 1981. xxii, 260 pp., illus. Cloth, \$29.50; paper, \$12.95. *Organic Chemistry*.

The Custom-Made Child? Women-Centered Perspectives. Helen B. Holmes, Betty B. Hoskins, and Michael Gross, Eds. Humana, Clifton, N.J., 1981. xiv, 368 pp. Cloth, \$14.95; paper, \$7.95. *Contemporary Issues in Biomedicine, Ethics, and Society*.

Dealing with Risk. The Planning, Management and Acceptability of Technological Risk. Richard F. Griffiths, Ed. Halsted (Wiley), New York, 1981. xxii, 144 pp. \$19.95.

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The Descent of Man, and Selection in Relation to Sex. Charles Darwin. With an introduction by John Tyler Bonner and Robert M. May. Princeton University Press, Princeton, N.J., 1981. xlviii, 476 pp. + appendix. Paper, \$10.95. Photoreproduction of the 1871 edition.

The Developmental Approach to Childhood Psychopathology. Humberto Nagera. Aronson, New York, 1981. x, 508 pp. \$30. *Classical Psychoanalysis and Its Applications*.

Energy Demand and Efficient Use. Proceedings of a school, Erice, Sicily, July 1980. Fernando Amman and Richard Wilson, Eds. Plenum, New York, 1981. viii, 462 pp., illus. \$52.50. *Ettore Majorana International Science Series, Physical Sciences*, vol. 9.

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