

books OF THE WEEK

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ASTRONOMY AND ASTROPHYSICS FOR THE 1970's—Astronomy Survey Committee, NAS/NRC—NAS, 1972, 136 p., photographs, diagrams, tables, paper, \$4.75. Recommendations for a major new program for the next decade. Report reviews the astrophysical frontier, the needs for manpower training and equipment, and outlines a high-priority program.

AT A BEND IN A MEXICAN RIVER—George Miksch Sutton—Eriksson, 1972, 184 p., color plates and drawings by author, photographs, \$14.95. Bird painter's personal description of camping expedition, recording the seldom seen birdlife of the northern tip of America's tropical life zone, from the lush Sabinas Valley to the Huastecan trails above the Axtla.

DATABANKS IN A FREE SOCIETY: Computers, Record-Keeping and Privacy—Alan F. Westin and Michael A. Baker, Project Directors—Quadrangle Bks, 1972, 522 p., tables, \$12.50. Study reported in this volume was undertaken under the auspices of the National Research Council. Presented are profiles of computerizing organizations—governmental, commercial and nonprofit; site-visit findings, and public policy implications.

DC ARC ANALYSIS—N. W. H. Addink—Macmillan (Halsted Pr), 1972, 92 p., diagrams, tables, \$22.50. Describes general methods of working for d.c. arc analysis, definition of K- and Q-factors, calculation of analysis results, working instructions with explanation of tables K- and Q-factors of 63 elements. Includes set of cards tabulating spectral lines of elements.

DEATH AS A FACT OF LIFE—David Hendin—Norton, 1973, 255 p., \$7.50. Reports on the new thinking about the legal, medical and psychological aspects of such topics as transplants, euthanasia, the dying patient, cryonics, and cremation.

A DICTIONARY OF MACHINING—Eric N. Simons—Philos Lib, 1972, 240 p., illus., \$15. Encyclopedic dictionary aims to expand well-established terminology by discussing in comprehensive fashion techniques in use today, particular processes relevant to modern practice.

EDUCATION AND HISTORY OF MODERN ASTRONOMY—Richard Berendzen, Ed.—N.Y. Acad. of Sciences, Annals, Vol. 198, 1972, 275 p., illus., paper, \$24. Proceedings of International Conference deal with education and employment of astronomers in the U.S., university-level astronomy education for non-science majors, non-collegiate astronomy education, and leading astronomers' accounts of the development of modern astronomy.

FULL CIRCLE: The Moral Force of Unified Science—Edward Haskell, Ed.—Gordon, 1972, 256 p., diagrams, chart, \$10.50.; paper, \$5.50. Attempts to restate human values as an assembly of the sciences, by generalizing the structure of the periodic table and outlining a periodic table of human cultures.

HUMANLY POSSIBLE: A Biologist's Notes on the Future of Mankind—Jean Rostand, transl. from French by Lowell Bair—Sat Rev Pr, 1973, 182 p., \$6.95. Scientist-humanist's collection of essays concerning man's connection to the changing world around him, from chromosomal development, and hormonal treatments, to the limits of the human, and biogenesis.

IS MY BABY ALL RIGHT? A Guide to Birth Defects—Virginia Apgar, M.D., and Joan Beck—Trident, 1973, 492 p., illus., \$9.95. Recognized specialist on the problems of newborn infants writes about defects and disorders occurring before or at the time of birth, the special medical care and educational help needed, and how to increase the chances of having normal, healthy babies.

KARST LANDFORMS—Marjorie M. Sweeting—Columbia U Pr, 1973, 362 p., photographs, diagrams, maps, \$25. Discusses the main features in the formation of landforms in limestone regions and describes in detail the main types of landform to be found in such regions, the nature of caves and cave deposits, including new research data.

THE NEW LAROUSSE ENCYCLOPEDIA OF THE EARTH—Leon Bertin, transl. from French; foreword by Sir Vivian Fuchs, introd. by Carroll Lane Fenton—Crown, 1972, 426 p., 34 color plates, photographs, diagrams, \$6.95. English edition, completely revised by editorial consultants, broadens copiously illustrated volume in its worldwide coverage of past and present phenomena in earth science.

NOTES OF AN ALCHEMIST—Loren Eiseley—Scribner, 1972, 125 p., illus. by Laszlo Kubinyi, \$6.95. A series of poems by anthropologist-naturalist, sensitive observations on events remembered.

NUTRIENTS IN NATURAL WATERS—Herbert E. Allen and James R. Kramer, Eds.—Wiley, 1972, 457 p., diagrams, \$21.50. Presents the latest thinking and research on nutrients by experts in the chemical and biological sciences and in engineering, giving a broad coverage, from nitrogen transformations in natural waters to development of nutrient control policies in Canada.

NUTRITION AND DEVELOPMENT—Myron Winick, Ed.—Wiley, 1972, 245 p., diagrams, \$17.50. Synthesizes existing knowledge in the areas of nutrition and development, and outlines the mounting evidence of the effects of deprivation of specific nutrients on the biochemical development of selected organ systems in early childhood.

OASIS IN SPACE: The Ocean World of Jacques Cousteau—Jacques-Ives Cousteau—World Pub, 1972, 144 p., photographs and illus. in color, maps, \$7.95. Explores the themes of the ocean's existence—how it moves and breathes, its seasons, its rhythms, what hurts it and what feeds it.

THE OXFORD BOOK OF VERTEBRATES: Cyclostomes, Fish, Amphibians, Reptiles and Mammals—Marion Nixon—Oxford U Pr, 1972, 216 p., 96 color plates by Derek Whiteley, \$14.75. Animals are arranged according to classification explained in book, and within each main group the pages are arranged broadly according to habitat.

OXIDE MAGNETIC MATERIALS—K. J. Stanley—Oxford U Pr, 1972, 2nd ed., 254 p., diagrams, tables, \$18.75. Monograph presents the basic principles of ferrimagnetism and of the more important physical properties of ferrimagnetic materials, together with a brief account of their preparation and crystallography.

PATTERNS IN PLANT DEVELOPMENT—Taylor A. Steeves and Ian M. Sussex—P-H, 1972, 302 p., micrographs, photographs, drawings, \$10.95. A factual account of the phenomena of development in the vascular plants; approach is structural, but emphasis is placed upon experimental and analytical data which make possible the interpretation of morphogenetic events.

PREGNANCY, BIRTH AND FAMILY PLANNING: A Guide for Expectant Parents in the 1970's—Alan F. Guttmacher, M.D.—Viking Pr, 1973, 380 p. illus. by Anthony Ravielli, \$10. Tells the lay reader the facts of conception, pregnancy, birth and birth control. Incorporates the latest scientific and socio-medical advances in obstetrics.

PREHISTORY: An Introduction—Derek Roe—U of Cal Pr, 1973, 288 p., 142 photographs and illus., maps, paper, \$3.25. Reprint (1970), deals with the sequence of events in prehistoric times and with some of the ways in which they are studied.

PREVENTIVE CARDIOLOGY: Proceedings of International Symposium, Sweden, 1971—Gösta Tibblin, Ancel Keys and Lars Werkö, Eds.—Wiley, 1972, 182 p., diagrams, tables, \$9.50. Papers and discussion deal with risk factors of ischemic heart disease, changing risk factors, and heart control programs.

PSYCHOLOGY IS ABOUT PEOPLE—H. J. Eysenck—Library Pr, 1972, 385 p., diagrams, \$7.95. Popularly written and controversial in its approach, the book deals with the experimental data, ideas and achievements of modern behaviorism, psychiatry and criminology.

THE SCANNING ELECTRON MICROSCOPE: World of the Infinitely Small—C. P. Gilmore—NYGS, 1972, 160 p., 175 photomicrographs, \$15.95. Describes the techniques and principles involved in working with the SEM, its capabilities and uses. Photographs show what actually happens to bacteria when attacked by penicillin, or the effects of sound on hair cells.

THE SEARCH FOR ORGANIC REACTION PATHWAYS—Peter Sykes—Halsted Pr (Wiley), 1972, 247 p., illus., paper, \$6.25. Describes where and how relevant experimental data can be obtained, and how it may be interpreted and fitted together to establish the most likely pathway by which a particular reaction proceeds.

THE SELECTION OF DESIGN—Gordon L. Glegg—Cambridge U Pr, 1972, 84 p., illus., \$6.95. Discusses systematically the adventure of inventing: where to begin, how to think about an engineering problem, what principles to apply, and how to choose between one possible design and another.

SLIDE RULE FOR THE MARINER—H. H. Shufeldt—Naval Inst. Pr, 1972, 200 p., diagrams, tables, paper, \$6.50. Review of procedures, and examples of problems most readily solved with the slide rule, problems in inshore navigation, offshore navigation and miscellaneous computations such as draft variation of a sailboat when heeled.

SUGAR-BEET NUTRITION—A. P. Draycott—Wiley, 1972, 250 p. diagrams, tables, \$19.50. Brings together information on all aspects of the nutrient requirements of sugar beet. Chapters deal with each element separately, examining concentration, uptake, deficiency symptoms, residual value in the soil, effect of irrigation, plant density and pests.

THE THREE-MILE LIMIT OF TERRITORIAL SEAS—Sayre A. Swartztrauber—Naval Inst Pr, 1972, 316 p., illus., tables, \$12.50. Traces the history of man's concept of territorial seas from the second century to the 1970's, includes opinions of publicists, state domestic practice, laws, decrees and court cases; international conventions, arbitrations and tribunals are examined for each historical period. Concludes with prospects and recommendations.

TOTAL MAN—Stan Gooch—HR&W, 1973, 552 p., diagrams, \$10. An outline of the author's speculative theory of personality, referring to the totality of man's psychological, emotional and intellectual life.

WATER QUALITY IN A STRESSED ENVIRONMENT: Readings in Environmental Hydrology—Wayne A. Pettyjohn, Ed.—Burgess, 1972, 310 p., photographs, diagrams, maps, paper, \$4.95. Readings drawn from scientific journals and governmental publications; offers reader material on specific examples of pollution and geologic or hydrologic background information.