

books OF THE WEEK

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BROTHERS AND SISTERS OF RETARDED CHILDREN: An Exploratory Study—Frances Kaplan Grossman—Syracuse Univ. Press, 1972, 249 p., tables, \$9.50. A pioneering study, focuses attention on the siblings, explores the ways in which they are affected by the presence of a retarded child in the family; includes a major five-year study of four groups of college students, all with retarded siblings.

BROWN-OUT AND SLOW-DOWN: Richard Saltonstall, Jr. and James K. Page, Jr.—Walker, 1972, 181 p., diagrams, tables, \$5.95. Brings together the facts about power and transportation in the U.S., projects data on consumption, resources and environmental liabilities, assesses alternatives, and suggests what the citizen can do about it.

INSECTS: Ross E. Hutchins—Prentice-Hall, 1972, 324 p., photographs, illus. by Stanley Wyatt, paper, \$3.50. Reprint (1966) of highly readable general survey of the insect world.

LIFE IN ACTION: Biochemistry Explained—Peter Farago and John Lagnado—Knopf, 1972, 258 p., illus., \$6.95. An up-to-date and readable account of the new discoveries in biochemistry, progressing from cells and tissue formation, proteins and enzymes, through metabolism, genetics and regulators to a discussion of perspectives.

THE LIFE PROCESS: J. A. V. Butler—Basic Bks., 256 p., illus., \$6.95. Based on findings in the field of molecular biology and related branches of biochemistry and biophysics in recent years, the basic mechanisms of life common to all organisms, in fact, largely interchangeable are presented in a unitary fashion, from viruses to man.

THE LIFE PUZZLE: On Crystals and Organisms and on the Possibility of a Crystal as an Ancestor—A. G. Cairns-Smith—Univ. of Toronto Press, 1971, 165 p., micrographs, drawings, \$6.50. Considers the role of molecular biology in formulating a view of life as it exists now, deals with generalized aspects of organization of matter, and advances the author's theory on the origin of life.

LIPID BIOCHEMISTRY: An Introduction—M. I. Gurr and A. T. James—Cornell Univ. Press, 1972, 231 p., micrographs, diagrams, \$7.50. A research-oriented text, deals with developments in analytical techniques, fatty acids, neutral lipids, phospholipids, glycolipids and sulpholipids, and lipids as components of macromolecules.

SCIENCE EXPLORING AT SPRUCE MOUNTAIN CAMP FOR BOYS

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Six world renowned science historians have helped create a limited edition medallic series commemorating greatest men and events in history of science—a collection of medallic fine art destined to become an historical heirloom and educational classic. For details, write to Medical Heritage Society, Dept. I, 20 North Wacker Drive, Chicago, Illinois 60606.

MAN AND THE ATOM: The Uses of Nuclear Energy—Frank Barnaby—Funk & Wagnalls, 1972, 216 p., 173 photographs and diagrams, \$6.95. Generously illustrated account of evolving techniques for harnessing nuclear energy, and the uses of this power in such fields as nuclear agriculture, medicine and engineering.

MAN, HEALTH AND ENVIRONMENT: Brent Q. Hafen, Ed.—Burgess, 1972, 269 p., illus., paper, \$3.95. Readings provide an overview of the nature and the effect of the various environmental pollutants with emphasis on the latest scientific knowledge of the health and welfare hazards of such pollution.

MAN'S IMPACT ON TERRESTRIAL AND OCEANIC ECOSYSTEMS: William H. Matthews, Frederick E. Smith and Edward D. Goldberg, Eds.—MIT Press, 1972, 540 p., maps, tables, \$19.50. Deals with the general polluting effects of man's activities, specific pollution problems, climatic and global atmospheric effects, ocean pollution, monitoring programs, implications of change and remedial action.

MONITORING EARTH RESOURCES FROM AIRCRAFT AND SPACECRAFT: Robert N. Colwell and others—NASA SP-275 (GPO), 1971, 170 p., color plates, photographs, charts, tables, \$4. Written by members of the Forestry Remote Sensing Laboratory of the University of California, the report describes experiments, and summarizes results of assessing vegetation and other resources by means of periodic aerial inventories.

THE NEW BIOLOGY: Graham Chedd—Basic Bks., 1972, 306 p., diagrams, \$7.50. Unfolds in layman's language the revolutionary developments in molecular biology that have changed our approach to the study of living organisms. Discusses the important implications of understanding life in terms of nucleic acids and proteins and the relationship between them.

THE NEW PHYSICS: John G. Taylor—Basic Bks., 1972, 308 p., photographs, diagrams, \$7.50. Physicist describes in lucid terms for the layman the latest fundamental ideas in physics and shows how they have radically altered our conception of the universe. The concept of unity is emphasized throughout the book.

THE NUCLEAR APPLE: Recent Discoveries in Fundamental Physics—P. T. Matthews—St. Martin's, 1972, 150 p., photographs, diagrams, \$6.95. Presents the complexities of sub-nuclear matter in nontechnical language, and places the developments of high energy physics in the context of the great tradition of physics which began with Newton.

ON EQUALITY OF EDUCATIONAL OPPORTUNITY: Papers Deriving from the Harvard University Faculty Seminar on the Coleman Report—Frederick Mosteller and Daniel P. Moynihan, Eds.—Random House, 1972, 572 p., \$15. Reexamination of the Coleman Report findings. See SN: 3/18/72, p. 182.

THE OPTICAL AURORA: A. Omholt—Springer-Verlag N.Y., 1972, 198 p., illus., \$17.30. Describes and discusses the aurora as an optical phenomenon, its occurrence and cause, the properties of the atmosphere as a detector for auroral electrons, hydrogen line emission, the optical spectrum and physics of optical emissions, pulsing auroras, radio observations, and auroral X-rays.

OUR POLLUTED WORLD: Can Man Survive?—John Perry—Watts, F., 1972, 2nd ed., 237 p., \$5.95. Revision contains 30 percent new material and all legislative reports and progress reports have been updated through 1971.

PHOTOGRAPHIC ANATOMY OF THE HUMAN BODY: Chihiro Yokochi—Univ. Park Press, 1972, 101 p., color plates, 200 photographs, drawings, \$12.50. Atlas features every principle organ and system of the human body, including cutaway and cross-section views.

PHOTOSYNTHESIS: Robert M. Devlin and Allen V. Barker—Van Nostrand Reinhold, 1972, 304 p., micrographs, diagrams, \$8.95. An account of the history, the theories, the photosynthetic apparatus, and the physical and chemical processes that convert the electromagnetic energy of light into chemical energy in green plants and certain bacteria.

POPULATION PERSPECTIVE, 1971: The American Universities Field Staff—Harrison Brown and Alan Sweazy, Eds.—Freeman, Cooper, 1972, 307 p., maps, tables, \$12; paper, \$6.50. Data and analysis of attitudes and variables in population growth in countries covered by field research including Afghanistan, Belgium, Bolivia, Brazil, Hong Kong, Indonesia, Ivory Coast, Japan, Kenya, Malawi, The Philippines and Yugoslavia.

THE PREHISTORY OF CHINA: An Archaeological Exploration—Judith M. Treisman—Natural Hist. Press, 1972, 156 p., 22 photographs, drawings, maps, \$5.95; paper, \$1.95. Covers the span of earliest Chinese antiquity, from paleolithic beginnings through a multiplicity of prehistoric cultures, tracing artisans and styles to the end of pre-history.

THE PSYCHIATRIC FORUM: Gene Usdin, Ed.—Brunner/Mazel, 1972, 229 p., \$7.50. Brief professional articles on such current and controversial topics as early infantile autism, phase-specific therapy of psychic disturbances, social psychiatry, charisma, administration and services, and psychiatry's continuing identification crisis.

THE SCIENCE OF GEMS: P. J. Fisher—Scribner, 1972, 190 p., photographs, diagrams, tables, glossary, paper, \$3.95. Tells about the history, composition and structure of mineral crystals and gem stones, discusses diamonds and other gem stones, natural, cultured and synthetic pearls, the cutting and testing of gems.

SELECTED WRITINGS OF T. C. SCHNEIRLA: Lester R. Aronson and others, Eds.—Freeman, W. H., 1972, 1032 p., illus., \$22.50. Collection of 34 contributions in the field of comparative psychology, dealing with various behavioral phenomena, the relationship between observation and experimentation, "innate" and "acquired" instinctive behavior, social organization, orientation and learning.

VIOLENCE AND THE BRAIN: Vernon H. Mark, M.D., and Frank R. Ervin, M.D.—Harper & Row, 1972, 184 p., illus., \$6.95; paper, \$4.95. Presents a biologically oriented approach to the problem of human violence, and discusses the role of the physician in diagnosing and treating violent individuals with focal brain disease.

WATER AND AQUEOUS SOLUTIONS: Structure, Thermodynamics and Transport Processes—R. A. Horne, Ed.—Wiley-Interscience, 1972, 837 p., diagrams, tables, \$37.50. Treats the whole complexity of water and its solutions, including discussions of sea water, cell water, and the state of water in living cells and tissues, as well as chapters on related systems such as ice and fused salts.

WILLINGLY TO SCHOOL: How Animals Are Taught—Hermann Dembeck, transl. from German by Charles Johnson—Taplinger, 1972, 224 p., \$6.95. Animal trainer gives an account of what monkeys, elephants, big cats, dogs, horses and dolphins can do when trust and understanding between man and beast is aided by the animal's play instinct and man's ability to channel that instinct by empathy and scientific knowledge.

WHITE ATTITUDES TOWARD BLACK PEOPLE: Angus Campbell—ISR, 1971, 177 p., tables, \$8; paper, \$5. Based on analyses of national survey findings and national voting studies, the monograph indicates steady improvement across regional, educational, and age categories.

THE WORLD OF THE BOTTLENOSED DOLPHIN: David K. Caldwell and Melba C. Caldwell—Lippincott, 1972, 157 p., 90 photographs, \$5.95. Informative narrative about dolphin behavior, their playfulness and eagerness to learn tricks, research, wild dolphins, and individual star attractions in oceanariums.