Books of the Week

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ANTHROPOLOGICAL PAPERS, Numbers 75-80—Anna Gritts Kilpatrick and others—Smithsonian Institution (GPO), 470 p., illus., paper, \$2. Contains monographs on North Carolina Cherokees, Apache rites, the Ramah Navaho and eastern Cherokee folktales.

BIOLOGY AND THE EXPLORATION OF MARS—Colin S. Pittendrigh, Wolf Vishniac and J. P. T. Pearman, Eds.—NAS-NRC, 516 p., illus., \$7.50. Report of a study on exobiology held under the auspices of the Space Science Board and the National Academy of Sciences, 1964-1965, concluding that the exploration of Mars merited the highest scientific priority and would find most favorable conditions between 1969 and 1973.

THE CAUTIONARY SCIENTISTS: Priestley, Lavoisier and the Founding of Modern Chemistry—Kenneth S. Davis—Putnam, 256 p., illus., \$5.75. A dual biography, illustrating through the lives of two 18th century contemporaries how scientific knowledge is gained and developed.

THE CHEMISTRY OF LIFE—Steven Rose—Penguin Bks., 266 p., 8 plates, diagrams, paper, \$1.75. Outlines the scope and achievement of biochemistry, presented by a research chemist as simply as accuracy will permit.

CURRENT RESEARCH ON SLEEP AND DREAMS—Gay Gaer Luce with Dennis McGinty; Julius Segal, Ed.—NIMH (GPO), 125 p., paper, 65¢. Reviews investigations supported by the National Institute of Mental Health and indicates the major trends of work in the area of sleep and dream research.

THE ENCYCLOPEDIA OF CHEMISTRY — George L. Clark and Gessner G. Hawley, Eds.— Reinhold, 2nd ed., 1144 p., illus., \$25. Enlarged and revised reference work contains 300 concise articles written by 600 experts covering subjects from Ablative Materials to Zone Refining.

AN EXAMINATION OF ROLE THEORY: The Case of the State Police—Jack J. Preiss and Howard J. Ehrlich—Univ. of Neb. Press, 286 p., charts, \$8.50. Presents series of studies testing some of the fundamental theories of role acquisition, role performance and role conflict through an intensive study of a midwestern law enforcement agency.

EXTRATERRESTRIAL LIFE: An Anthology and Bibiliography—Eli A. Shneour and Eric A. Ottesen—NAS-NRC, 478 p., illus., \$6. Supplementary to the NAS-NRC study BIOLOGY AND THE EXPLORATION OF MARS, contains reprints of selected papers and selected bibliography of some 2,000 references.

A FIELD GUIDE TO THE BIRDS OF BRITAIN AND EUROPE—Roger Tory Peterson, Guy Mountfort and P. A. D. Hollom—Houghton, 2nd ed., 344 p., 66 color plates, 384 distribution maps, 530 illus., \$6. Now revised and enlarged in collaboration with I. J. Ferguson-Lees and D. I. M. Wallace, this popular guide has appeared in 11 foreign-language editions since its original publication in 1954.

FLUID AMPLIFIERS — Joseph M. Kirshner, Ed.—McGraw, 295 p., diagrams, \$16.50. Summarizes most of the important work in the field of fluid interaction devices, with emphasis on physical phenomena rather than mathematics.

FREE FOR THE EATING—Bradford Angier— Stackpole Bks., 191 p., illus., \$4.95. Describes 100 wild plants—fruits, greens, roots, tubers and nuts—and tells how to use them.

FUNDAMENTALS OF PHYSICAL SCIENCE
—Konrad Krauskopf and Arthur Beiser — McGraw, 5th ed., 701 p., illus., \$9.50. Modern text
for the general student, concentrates on the fundamental topics in each discipline and shows
where they fit into the whole of physical science.

GREEK—Educational Services—World Pub. Co., 33 p., illus., paper, five 33 1/3 RPM vinyl records, \$2.45. One of 30 sets in World Foreign Language Record Series, including Amharic and Vietnamese, each containing words and expressions most likely to be used during travel.

GUIDE TO FOSSIL MAN: A Handbook of Human Palaeontology—Michael H. Day, foreword by J. S. Weiner—World Pub. Co., 289 p., photographs, maps, \$10. Short description of the environment, culture, dating and anatomy of fossil man, followed by regional lists of principal specimens found, giving full range of data on each find. Glossary included.

INCIDENT AT EXETER: The Story of Uni-dentified Flying Objects over America Today— John G. Fuller—Putnam, 251 p., \$5.95. Conjec-tures based on interviews with people claiming to have sighted UFOs.

ISOTOPES AND RADIATION IN SOIL-PLANT NUTRITION STUDIES: Proceedings of Symposium held in Ankara in 1965—W. Flaig and others, E. M. Counsell, Ed. — IAEA (Nat. Agency for Int. Pubns., N.Y.), 609 p., illus., \$12. Among topics discussed were soil chemistry of inorganic ions, soil organic matter, ion uptake and translocation, and fertilizer usage.

KNOWLEDGE AMONG MEN: Eleven Essays on Science, Culture and Society Commemorating the 200th Anniversary of the Birth of James Smithson—Introd. by S. Dillon Ripley—Simon & Schuster, 191 p., \$5.95. Among subjects discussed are the perfectibility of intellect and an analogy of biological and mental evolution.

THE KNOWLEDGE EXPLOSION: Liberation and Limitation—Francis Sweeney, S.J., Ed.—Farrar, Straus, 249 p., \$4.95. Contains the speeches of the Centennial Colloquium at Boston College.

LET'S GO TO BUILD A SUSPENSION BRIDGE—Michael Chester—Putnam, 47 p., illus. by Charles Dougherty, \$1.97. Informative reading by Charles for young boys.

MEN, MACHINES AND MODERN TIMES— Elting E. Morison—M.I.T. Press, 235 p., \$5.95. An entertaining series of historical accounts on the nature of technological change, including a time-motion study of "time-honored" artillery time-motion study of "time-honored" artiller practice and the introduction of Bessemer steel.

MONOBATH MANUAL—Grant Haist—Morgan & Morgan, 168 p., 52 photographs, \$6.95. A guide for one-solution developing in photography.

NARCOTICS: An American Plan—Saul Jeffee, introd. by Will Oursler—Eriksson, Paul S., 192 p., \$5. Presents a coordinated program of free ambulatory treatment and maintenance of drug addicts through government-operated clinics.

NUCLEAR MATERIALS MANAGEMENT:
Proceedings of Symposium held at Vienna, 1965—
E. Santarelli and others, A. Guillon, Ed.—IAEA
(Nat. Agency for Int'l Pubns. N.Y.), 888 p., illus., \$18. Topics discussed included materials control systems, recording and reporting techniques, evaluation of measurement methods, burn-up and production.

PARTICLES IN THE ATMOSPHERE AND SPACE—Richard D. Cadle—Reinhold, 226 p., illus., \$10. Written for scientists and engineers who are not specialists in fine-particle science and technology, the book treats types of particles ranging from man-made particles to interplanetary dust

PLANT DIVERSIFICATION—Theodore Delevoryas—Holt, 145 p., illus., vinyl, \$2.25. The main emphasis in this particular modern biology text is on form and the evolution of plant form, rather than plant groups.

THE PRINCIPLES OF INSECT PHYSIOLOGY—Sir Vincent B. Wigglesworth—Dutton, 6th ed., 741 p., 407 illus., \$17.50. Revised text incorporates the extensive advances of the past 12 years based on new techniques in electron microscopy, neurophysiology and many aspects of biochemistry.

THE SCIENTIFIC PAPERS OF JAMES CLERK MAXWELL—W. D. Niven, Ed.—Dover, 806 p., illus., \$12.50. This is the 1890 two-volume commemoration edition brought back into print, bound in one volume.

SIGNAL FLOW ANALYSIS—J. R. Abrahams and G. P. Coverley—Pergamon Press, 158 p., diagrams, vinyl, \$3.75. Presents signal flow graph methods to engineering students and practicing engineers for solving electrical problems.

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THE SOVIET UNION IN THE WORLD COMMUNIST SYSTEM—Vernon V. Aspaturian—Hoover Institution, 95 p., paper, \$2.50. Explores the Soviet Union's unique position, analyzes the various roles it is called upon to play, and examines the demands and pressures exerted upon the Soviet Union by the different internal and external environments in which it acts.

SPORES: Their Dormancy and Germination—Alfred S. Sussman and Harlyn O. Halvorson—Harper, 354 p., lilus., \$14. A reference work in the basic principles of the dormant state in biology, deals with the longevity and survivability of spores, the nature of the dormant condition, and the mechanism for breaking the dormant state.

THERMODYNAMICS, Vols. I and II—E. R. A. Beck, Ed.—IAEA (Nat. Agency for Internat'l Pubns.), 524 p., 658 p., illus., \$11, \$13. Proceedings of 1965 Symposium held in Vienna. Part I deals with calorimetry at high temperatures, EMF methods, vaporization and thermodynamics of the liquid state; Vol. II, with diffusion, correlation of thermodynamic and atomic transport properties, oxidation and thermochemistry.

TRANSISTER ETCHED—CIRCUIT PROJECTS—James Kyle—Sams, Howard W., 144 p., illus., paper, \$2.95. Step-by-step instructions for preparing etched boards and 30 different photoetched circuit projects. Ready-to-use negatives are included.

A TRIP TO THE POND: An adventure in Nature—Melita Hofmann—Doubleday, 64 p., illus. by author, \$3.75. A good book to encourage observation at close range, takes children through the seasons, depicting and describing plants and wildlife to be seen near ponds.

THE UNCLEAN SKY: A Meteorologist Looks at Air Pollution — Louis J. Battan — Doubleday, 141 p., diagrams by author and D. C. Perceny, paper, \$1.25. An original paperback, intended as supplementary reading for students, describes the causes of air-polluting particles and discusses some possible improvements.

· Science News, 90:60 July 23, 1966

Do You Know?

Porcelain enamel is made with a coating of a pulverized mixture of the elements of glass bonded to metals at high temperatures.

Hunters of the Andean tribe known as the Jivaro considered the possession of shrunken heads a symbol of prowess and believed it was pleasing to one's ancestors.

A laser that draws its power from sunlight focused onto the side of a tiny crystal rod is the basis of a practical communications system in space.

Speech and hearing problems sufficiently serious to cause vocational, social or psychological handicaps afflict more than eight million persons in the United States.

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