

Books of the Week

For the editorial information of our readers, books received for review are listed. For convenient purchase of any U. S. book in print, send a remittance to cover retail price (postage will be paid) to Book Department, Science Service, 1719 N Street, N.W., Washington 6, D. C.

AUTO RADIO MANUAL, Vol. 16—Howard W. Sams Engineering Staff—Sams, 160 p., illus., paper, \$2.95. Service data on 41 models produced in 1960-1961.

COLOUR ALL THE YEAR ROUND: A Complete Handbook for the Small Flower Garden—Roy Genders—St. Martins, 287 p., illus., \$5.95. While written for the British gardener, book is comprehensive enough to suggest new ideas to the American small gardener.

COMPUTERS IN EDUCATION—J. A. P. Hall, Ed.—Pergamon (Macmillan), 122 p., \$7.50. Proceedings of a conference on "The Computing Laboratory in the Technical College", held at Hatfield College of Technology.

EARTHQUAKE INVESTIGATION IN THE UNITED STATES—Coast & Geodetic Survey (GPO), rev. ed., 43 p., illus., paper, 25¢. Booklet explains earthquake phenomena and outlines the work of seismological organizations.

ECOLOGY AND SOCIAL BEHAVIOR OF THE COATI, NASUA NARICA, ON BARRO COLO-RADO ISLAND, PANAMA—John H. Kaufmann—Univ. of Calif. Press, 203 p., 16 plates, paper, \$2.75. Summarizes a study of ecological adaptations, especially behavioral, of this long-tailed small mammal in its natural habitat.

EXPERIMENTAL PHYSICAL CHEMISTRY—W. G. Palmer—Cambridge Univ. Press, 2nd ed., 321 p., illus., \$5.50. Updated introductory textbook.

EXPLORING THE UNIVERSE—American Foundation for Continuing Education, Louise B. Young, Ed.—McGraw, 457 p., illus., \$6.95. Collection of stimulating readings from outstanding scientists and writers, selected to introduce the reader to the nature of science and its influence on man.

AN EXPOSITION OF ADAPTIVE CONTROL—J. H. Westcott, Ed.—Pergamon (Macmillan), 134 p., diagrams, \$6.50. Symposium papers on current developments in variational methods and stochastic theory.

THE GENETIC CODE—Isaac Asimov—Orion Press, 187 p., \$3.95. Explains in layman's language the background to the breakthrough in molecular biology, the discovery of DNA and its far-reaching implications.

GUIDE TO RUSSIAN REFERENCE BOOKS, Vol. 1: General Bibliographies and Reference Books—Karol Matchel; J.S.G. Simmons, Ed.—Hoover Institution, 92 p., paper, \$5. First of a six-volume planned guide to Soviet and East European source material in the sciences and humanities.

HANDBOOK OF AIRLINE STATISTICS, 1962—William Weinfeld, Ed.—Civil Aeronautics Bd. (GPO), 560 p., paper, \$4.75. Reference volume of annual traffic and balance sheet data for certified U.S. air carriers, covering the 11-year period 1951-1961.

INDUSTRIAL AND EXPLORATORY GEOPHYSICAL PROSPECTING—K. F. Zhigach, Ed., transl. from Russian—Consultants, 136 p., illus., \$17.50. Collection of 19 papers concerned with advanced techniques and methods of interpretation, representing work carried out at the I. M. Gubkin Institute of the Petroleum-Chemistry and Gas Industry, Moscow.

ISLETA PAINTINGS—Elsie Clews Parsons, Esther S. Goldfrank, Ed.—Smithsonian Inst. (GPO), 299 p., illus., \$10. Reproductions of 141 paintings of the secret tribal rites of Pueblo Indians, with commentary by ethnologist.

LAW AND ADMINISTRATION, Vol. 3: Nuclear Liability—Jerry L. Weinstein, Ed.—Pergamon Press (Macmillan), 483 p., \$20. Authoritative discussion of liability, safety evaluation and licensing, presents tabulated review of nuclear incidents, the role of insurance and legislation.

MAN ON EARTH: A Preliminary Evaluation on the Ecology of Man—S. P. R. Charter, foreword by Aldous Huxley—Contact (Angel Island Pubs.), 272 p., \$4.95. Essays exploring man's relationship to his environment which modern science may be in the process of modifying to a greater extent than man is aware of.

THE MAN WHO FOUND OUT WHY: The Story of Gregor Mendel—Gary Webster—Hawthorn Bks., 188 p., illus. by Greg and Tim Hildebrandt, \$2.95. Juvenile biography about the Augustinian monk whose searching experimentation discovered new laws of genetics.

MOLECULAR GENETICS, Part I—J. Herbert Taylor, Ed.—Academic Press, 544 p., illus., \$14.50. Concerned with the molecular view of the mechanism of heredity, with DNA, its replication, control mechanisms and mutability, and with the biosynthesis of RNA.

THE NURSE EVERYONE NEEDS—Marguerite Olark—Public Affairs Committee, Pamphlet No. 338, 28 p., illus. by Dick Shelton, paper, 25¢ direct

to publisher, 22 E. 38th St., New York 16, N.Y. Explains the training and work of the licensed practical nurse.

PETROLOGICAL STUDIES: A Volume in Honor of A. F. Buddington—A. E. J. Engel, Harold L. James and B. F. Leonard, Eds.—Geological Soc. of Am, 660 p., illus., maps, \$12. Papers range from discussion of iron-magnesium ratio in associated pyroxenes and olivines to a history of ocean basins.

THE PUEBLO OF SIA, NEW MEXICO—Leslie A. White—Smithsonian Inst. (GPO), 358 p., illus., \$2.75. This Bulletin 184 of the Bureau of American Ethnology is based on field observations and discussions with local informants.

QUALITATIVE ANION-CATION ANALYSIS: An Interpretative Laboratory Text of Semimicro Procedure in Basic College Chemistry—Emil J. Margolis—Wiley, 300 p., illus., \$5. Provides fully detailed experimental working directions, featuring side-by-side matching of the descriptive interpretative chemistry of the reactions observed.

RADIO PROPAGATION AND THE IONOSPHERE—Ya. L. Al'pert, transl. from Russian—Consultants, 394 p., illus., \$22.50. Deals with the basic phenomenology of the propagation of radio waves of wavelengths ranging from millimeters to many tens of kilometers, including experimental data and techniques.

RUSSIAN READINGS IN POPULAR SCIENCE—Gordon H. Fairbanks, Augusta L. Jaryc and Richard L. Leed, Eds.—Columbia Univ. Press, 154 p., \$4.75. Provides interesting, original and not too technical reading selections for the student who knows the basic elements of Russian grammar.

SCHOOL FIRES: Prevention, Control, Protection—R. N. Finchum and Glenn C. Boerrigter—OE (GPO), 130 p., illus., paper, 55¢. Summarizes the problem, the fields of responsibility, hazards, house-keeping and safety devices.

A SUMMARY OF INCIDENTS INVOLVING USAEC SHIPMENTS OF RADIOACTIVE MATERIAL, 1957-1961—D. E. Patterson and V. P. DeFatta—USAEC (OTS), 70 p., illus., paper, 75¢.

TABLES OF RANDOM PERMUTATIONS—Lincoln E. Moses and Robert V. Oakford—Stanford Univ. Press, 233 p., \$7. Provides tables of random permutations of 9, 16, 20, 30, 50, 100, 500 and 1,000 integers.

THEY SURVIVED: A Study of the Will to Live—Wilfrid Noyce, foreword by Sir Vivian Fuchs—Dutton, 202 p., illus., \$4.95. True cases of extraordinary physical endurance and mental stability under stress.

TOPICS IN ENGINEERING LOGIC—Morton Nadler, Ed.—Pergamon (Macmillan), 231 p., illus., \$9.50. A theory of synchronous electronic logical systems in which close attention is paid to the actual circuits employed.

UNITED STATES MAGNETIC TABLES FOR 1960—K. L. Svendsen—Coast & Geodetic Survey (GPO), 91 p., maps, paper, \$1.50. Up-to-date tables and charts, including Alaskan and Hawaiian data.

URBAN GROWTH DYNAMICS: In a Regional Cluster of Cities—F. Stuart Chapin, Jr. and Shirley F. Weiss, Eds.—Wiley, 484 p., maps, \$8.95. Result of a series of urban studies exploring the dynamics of a segment of American society in transition from the rural to an urban environment.

THE WORLD ALMANAC 1963 and Book of Facts—Harry Hansen, Ed.—N.Y. World-Telegram (Doubleday), 78th ed., 896 p., \$2.50. Compact reference of facts, with summarized record of events in the U.S. and abroad during 1962.

• Science News Letter, 83:92 February 9, 1963

ANTHROPOLOGY

Ancestry of Man Dates Back 2,000,000 Years

► **THE ANCESTRY** of man extends longer into the past than has been credited and is more than 2,000,000 years. By means of potassium-argon dating, the age of African man, *Zinjanthropus*, has been determined to be 1,750,000 years in the past. The dated skeletal remains must have been preceded by a period of tool-making estimated as some 900,000 years. This corrects SNL 83:21, Jan. 12, 1963.

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Allis-Chalmers

MAMMOTH BONE—Norma Noble, a member of the Tule Springs Expedition, carefully picks dirt from a mammoth's leg bone. The fossil bone was uncovered in the desert ten miles north of Las Vegas, Nev., in the search for evidence of man's living there 32,000 years ago.

ANTHROPOLOGY

Man Inhabited Nevada 32,000 Years Ago

► **MAN LIVED** in the Western Hemisphere 32,000 years ago, about twice as long in the past as previously believed.

On the windswept desert ten miles north of Las Vegas, Nev., a group of 28 archaeologists, paleontologists and geologists led by Dr. Richard Shutler Jr., curator of anthropology for the Nevada State Museum, found charcoal, from what they believe to be ancient campfires, that showed a range in age from 26,000 to 32,000 years by radio-carbon dating.

To excavate the overburden of clay, silt and gravel a huge 32-ton earthmover, loaned by Allis-Chalmers to the expedition, was used, eliminating much of the hand labor. When a find was made, however, the traditional method of digging with pick-axes, hammers and scrapers was used.

One of the most exciting finds so far is the dissected bones of mammoths, camels, horses and bison on which ancient man had feasted. Stone flakes from artifacts such as bone tools, stone knives and hammers were also turned up during the excavation.

The first fossil bones in the Tule Springs site, an area below the Las Vegas Mountain range, were found in 1933 by a group from the American Museum of Natural History.

As work continues at the site, the trenches will be cut as deep as 30 feet in some places and are expected to yield many more valuable finds which scientists will use to construct the chronology of more than 30,000 years of man's activity.

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