

will require the most earnest attention if we are to increase our national competence in science and technology while keeping the universities intellectually vigorous and administratively independent.

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### **Sea Shells of Tropical West America.**

Marine mollusks from Lower California to Colombia. A. Myra Keen. Stanford University Press, Stanford, Calif., 1958. x + 624 pp. Illus. \$12.50.

Myra Keen's book truly fills a long-felt need, for prior to its appearance there was no adequate handbook dealing with the mollusks of the area it covers.

Like R. Tucker Abbott's *American Sea Shells*, with which it will inevitably be compared and to which it serves as a companion volume as far as the west coast of tropical North America is concerned, this volume necessarily deals with only the commoner and larger mollusks of the littoral region and the shallow waters. About 1650 species are briefly described, and of these, approximately 1500 are illustrated. Most of the figures are in black-and-white, but 11 species are superbly depicted in color. It is a pity that better use was not made of these fine color plates through portrayal of more than one species on a plate. However, the author is to be commended on the arrangement of the volume; the illustrations are grouped together as text figures so that, in almost all cases, the descriptions and illustration of a species fall on the same page or on opposite pages. Another valuable feature of this volume is the frequent use of keys to the genera of the larger families and, occasionally, to the subgenera and even to species within a genus.

The smaller species are only cursorily mentioned, since, to have included all of the many species that have been described in some of these groups would have considerably increased the volume of the book. In such groups as the Eulimidae, the Rissoacea, the Vitri-  
nellidae, the Caecidae, the small Cerithiidae, and most of the Pyramidellidae, only representatives of the genera are illustrated; in most cases the illustrations are accompanied by keys. For the Epitoniidae there is a key to the genera

and subgenera, and all known species are listed (though not described), but only 58 percent of them are illustrated; this is somewhat unfortunate, since species of this family are frequently found in collections because of their rather striking appearance.

A number of valuable appendices follow the main body of the text; these include a short two-page glossary of terms, a series of useful keys to the superfamilies of pelecypods and to superfamilies and families of gastropods, and a valuable list of sources for the figures used. I might mention here that about 70 type specimens are illustrated in this book for the first time. The valuable 30-page bibliography and the index are followed by four pages of addenda that give some final changes and corrections made by Keen while the book was in page proof; most of the changes and corrections are the result of Keen's examination of types in the British Museum.

Both professional malacologists and marine biologists, as well as amateur collectors who gather shells on the sandy beaches and rocky shores of the west coasts of Mexico and Central America, owe a debt of gratitude to Myra Keen for this extremely useful and authoritative reference book. I hope that someone equally gifted will be induced to write a similar volume on the Caribbean molluscan fauna.

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### **Larousse Encyclopedia of Astronomy.**

Lucien Rudaux and G. de Vaucouleurs. Revised by Z. Kopal. Prometheus Press, New York, 1959 (order from Putnam's, New York). 506 pp. Illus. Until 1 Jan., \$12.50; after 1 Jan., \$15.

This beautifully produced volume is a pleasure both to read and to behold. It is, as the name states, an encyclopedia—a 500-page quarto volume—and its double columns are very liberally interspersed with 806 excellent photographs and drawings, as well as 12 beautiful color plates.

Instead of containing an alphabetically arranged collection of short articles, the text is arranged by chapters in much the same manner as has become conventional for college textbooks—that is, an introduction followed by chapters that discuss the earth, the solar system, and

so forth. This arrangement greatly enhances the readability, for once the reader has looked up a particular subject in the very adequate index, he will plunge into the text only to find, half an hour later, that he has long since covered the point in question and has read on for pages on allied subjects. While the authors have included practically no mathematics, they have not hesitated to provide word explanations or drawings of astronomical phenomena, and whatever can be made clear in this fashion is well taken care of. There is a profusion of numerical and tabular information—for example, a list of 184 lunar craters, 20 maria, and 13 mountain ranges, all identified on an accompanying plate.

All in all, this is an excellent reading and reference volume for interested high-school and beginning college students, for parents whose children ask embarrassing questions, and even for the professional astronomer who likes to have a handy elementary reference book at his elbow.

There is one shortcoming which must be mentioned, however. Aside from certain rather limited revisions made recently by Kopal, the text was apparently written about 1946. It is disappointing to find that no photographs taken with the 200-inch telescope are reproduced, that only two or three pages are devoted to radio astronomy, and that very little of the results of rocket, satellite, or balloon astronomy are covered. The inclusion of Russell's table of 1942 showing the evolution of the sun from spectral type dK8 through dG2 to type B9 seems a little quaint.

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### **A Reader's Guide to the Social Sciences.**

Bert F. Hoselitz, Ed. Free Press, Glencoe, Ill., 1959. 256 pp. \$2.95.

Well over 100 years ago Auguste Comte dreamed of a synthesis of social science. Peter Odegard has stated that the mood of the postwar generation is one of specialization and integration among the major disciplines. Hoselitz and his colleagues have performed a service by implementing, in part, Comte's concept and Odegard's observation with a book that provides something more than a thumbnail review of the development of the literature of social science. The book represents a point of departure for further, more

substantive treatises in this direction.

The volume is useful to the specialist, who will gain from an overview of the literature of allied disciplines. Similarly, it is of value to the general reader and the librarian interested in works on social science. The natural scientist will be delighted to find that it is not merely a curious bibliography but, to a considerable extent, an introductory text in a very vital area that is of increasing interest to natural scientists. The contributors not only discuss the important personalities and the historically important writings but also indicate the present state of each field and mention many of the contemporary scholars who are doing significant work in these fields.

The shortcomings of the book are few. The editor was generous and included anthropology, geography, history, and psychology with the pure social sciences—economics, political science, and sociology. In my opinion, the volume would have been strengthened by the inclusion of a separate section on statistics, which emphasized applications to empirical analysis—so important to the current position of the science of society. The empirical function, however, is treated summarily within the various sections of the book.

This unique work deserves to be very widely read, both at home and abroad, by all intellectuals and by scientific technicians. And I am not being facetious in the least in stating, especially in view of Chairman Khrushchev's recent travels, that the volume should be required reading, preferably in translation, within Kremlin walls.

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**Features and Formation of the Great Kawir and Masileh.** Hans Bobek. Arid Zone Research Centre, University of Teheran, Teheran, Iran, 1959. 63 pp. Illus. 1 map.

This detailed description of a complex of desert basins southeast of Teheran on the Iranian plateau is based on a study of air photographs, supplemented by ground reconnaissance in parts of the area. The monograph includes some excellent reproductions of vertical photographs showing huge alluvial fans, salt basins, partly buried folds, and sand-dune complexes.

## Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

*Algae in Water Supplies.* An illustrated manual on the identification, significance, and control of algae in water supplies. C. Mervin Palmer. U.S. Public Health Service, Washington, D.C., 1959 (order from Supt. of Documents, GPO, Washington 25). 88 pp. \$1.

*Archeological Excavations at Jamestown.* Colonial national historical park and Jamestown national historic site, Virginia. John L. Cotter. U.S. Department of Interior, Washington 25 (order from Supt. of Documents, GPO, Washington 25). 289 pp. \$2.75.

Biological Series, Michigan State Univ. vol. 1, No. 5, *The Bog Lemming Synaptomys cooperi in Southern New Jersey*, Paul F. Connor, 10 pp. vol. 1, No. 6, *Notes on Reptiles from the Mexican State of Durango*, Robert G. Webb and Max Hensley. vol. 1, No. 7, *New Vertebrate Fossil Localities in the Vale Formation (Lower Permian) of North-Central Texas*, Richard J. Seltin, 10 pp. Michigan State Univ., East Lansing, 1959.

*Chimie et Radioactivité Atmosphériques.* J. Grandjean. 24 pp. *Nouvelles de l'Espace.* M. Nicolet. 19 pp. Institut Royal Météorologique de Belgique, Brussels, 1959.

*Cold Acclimatization in the Golden Hamster.* vol. 20, No. 3. Richard L. Farand, State Univ. of Iowa, Iowa City, 1959. 29 pp. \$0.50.

*The Culicine Mosquitoes of the Indo-malayan Area.* pt. 4. Genus *Aedes* Meigen, subgenus *Skusea* Theobald, *Diceromyia* Theobald, *Geoskusea* Edwards and *Chrophsiomyia* Barraud. P. F. Mattingly. British Museum (Natural History), London, 1959. 61 pp. 12s.

*The Dawning Space Age.* H. E. Mehrens. Civil Air Patrol, Ellington Air Force Base, Tex. 1959. 224 pp. \$2.

*Educators Guide to Free Tapes, Scripts, and Transcriptions.* Compiled and edited by Walter A. Wittich and Gertie Hanson Halsted. Educators Progress Service, Randolph, Wisc., ed. 6, 1960. 225 pp. \$5.75.

*The General-Field Law and the Structural Nature of Matter.* Based on the mechanics of vector dynamics. A. D. Sarantites. Plastonics Corp., Moorestown, N.J., 1959, 131 pp.

Geological Sciences, Univ. of California Publications. vol. 34, No. 3, *Tertiary Stratigraphy of the Blairsden Quadrangle, Plumas County, California*, Cordell Durrell, 32 pp. vol. 34, No. 4, *The Lovejoy Formation of Northern California*, Cordell Durrell, 28 pp. Univ. of California, Berkeley, 1959.

*How to Identify and Name Soils.* Use of scorecard for identifying and naming soils. R. Earl Storie. Univ. of California, Berkeley, 1959. 55 pp. \$1.

*Instrumentation for Geophysics and Astrophysics.* No. 12, AFCRC-TR-59-244: *Theoretical Analysis of the Par-Scope: and Oscilloscope Display for Weather Radars*, Edwin Kessler, III, 36 pp. Geophysical Research Papers, No. 59, AFCRC-TR-58-235(3), vol. 3: *Project Prairie Grass, a Field Program in Diffusion*, Duane A. Haugen, Ed. 673 pp. Geophysics Research

Directorate, Bedford, Mass., 1959 (order from U.S. Dept. of Commerce, Office of Technical Services, Washington 25).

*Introduction to Mathematical Psychology.* 32 pp. *Studies in Indian Psychology.* 54 pp. S. K. Ramachandra Rao. All-India Inst. of Mental Health, Bangalore, 1959.

*Involution of the Ductus Arteriosus.* A morphological and experimental study, with a critical review of the literature. A. Sciacca and M. Condorelli. Karger, Basel, Switzerland, 1960. 52 pp. F. 7.

*Methodological Aspects of Statistics on Research and Development Costs and Manpower.* National Science Foundation, Washington 25, 1959 (order from Supt. of Documents, GPO, Washington 25). 132 pp. \$1.25.

*The Neolithic Revolution.* Sonia Cole. British Museum (Natural History), London, 1959. 60 pp. 5s.

*Outline of Histology.* Margaret M. Hoskins and Gerrit Bevelander. Mosby, St. Louis, Mo., ed. 4, 1959. 112 pp. \$4.75.

*Pachuco: An American-Spanish Argot and Its Social Functions in Tucson, Arizona.* Social Science Bull. No. 18. George Carpenter Barker. Univ. of Arizona Press, Tucson, 1958, 46 pp.

*The Plant Kingdom.* A laboratory manual. Paul C. Lemon and Norman H. Russell. Mosby, St. Louis, 1959. 176 pp. \$3.25.

*Proceedings of the United States National Museum.* vol. 109, *Marine Mollusca of Point Barrow, Alaska*, Nettie MacGinitie, 150 pp.; vol. 110, *A Revision of American Bats of the Genera Euderma and Plecotus*, Charles O. Handley, Jr., 142 pp. Smithsonian Institution, Washington, D.C., 1959.

*Processing Neuroelectric Data.* Communications Biophysics Group. William M. Siebert. Technology Press, Massachusetts Inst. of Technology, Cambridge, 1959. 121 pp. \$4.

*Rainbow Trout in Mexico and California.* vol. 67, No. 1, Publications in Zoology. Paul R. Needham and Richard Gard. 124 pp. \$2.50. Univ. of California, Berkeley, 1959.

*Science Begins at Home.* Anne Roe. Thomas Alva Edison Foundation, New York, 1959. 19 pp.

*Sonderausschuss Radioaktivitat.* Bundesrepublik Deutschland, Thieme, Stuttgart, Germany, 1959. 117 pp.

*Soviet Commitment to Education.* Report of the first official U.S. education mission to the U.S.S.R. With an analysis of recent educational reforms. Bull. 1959, No. 16. U.S. Office of Education, Washington, D.C., 1959 (order from Supt. of Documents, GPO, Washington 25). 135 pp. \$0.70.

*The Superintendent's Viewpoint on Educational Television.* Region 1 Conference of the NAEB. Thomas Alva Edison Foundation, New York, 1959. 28 pp.

*Unprocessed and Processed Radioisotope Preparations and Special Radiation Sources.* vol. 1. International Atomic Energy Agency, Vienna 1, Austria, 1959 (order from UNESCO Publications Center, New York 22). 264 pp. \$3.50.

Zoology Publications, No. 25. *Some Additional New Zealand Cephalopods from Cook Strait.* R. K. Dell. Victoria Univ. Wellington, N.Z., 1959. 12 pp.