

principles is praiseworthy. It is also quite refreshing to see the importance of dimensional analysis called to the attention of meteorologists, quite a few of whom seem to ignore it. The innovation of using a list of symbols as end paper for the book is appealing.

The treatise proceeds, in logical form, from the principles of thermodynamics, hydrodynamics, and radiation to the problems of atmospheric motion. These are dealt with in an up-to-date fashion. There is a welcome excursion into the important field of turbulence. The book culminates in a discussion of numerical "weather" prediction (at present still a distinct misnomer) and ends with an approach to the explanation of the general atmospheric circulation. This terminates with Philipps' already classical numerical experiment of 1956.

Quite disappointing is the treatment of condensation and precipitation problems. The theory has certainly advanced beyond static saturation. Although Hess deliberately tried to avoid vector notation, I doubt whether this really simplifies things beyond a certain formal point for the student. Even the more elementary mathematical treatment will not make theoretical meteorology into a "snap" course. The effort required to solve the problems, which the author has appended to each chapter, will convince the beginner of that.

The book is very well illustrated and produced. One can wish it a long and successful run.

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Approach to Archaeology. Stuart Piggott. Harvard University Press, Cambridge, Mass., 1959. x + 134 pp. Illus. \$3.

This is the newest in a series of books written by archeologists of the British Isles and designed to interpret the methods and results of archeology. Like the others, it is aimed at capturing the interest of the general reader. Stuart Piggott's work focuses on process and on the nature of archeological evidence rather than upon results.

The discerning reader will find much that is useful in this study. Topics range from archeology as a discipline; the methods and techniques of detection, recovery, and identification; and the construction of time-scales to the re-

lationships of archeology to prehistory and history. In the latter instance the discussion centers on societies which left documentary and literary records and those which did not—text-free and text-aided archeology—as the basis for establishing the role of archeology. This distinction is far more emphatically made in Europe than in America, for in the New World the literary record is scant, and the dividing line between history and prehistory is less complicated. The important point, of course, is that the techniques of archeology are all that we have to shed light on certain aspects of societies, whether old or young, simple or complex, and whether literate or not. The distinction, therefore, is largely academic.

The disappointing feature of this book is its regional bias and the avoidance of recognizing contributions made by New World archeologists to the approach to the discipline. Tree-ring dating is briefly mentioned, but its regional applications, its potentiality, and its impact on time-scale building are not explored. Archeological reconnaissance as a means of testing the resources of an area and as a basis for formulating problems is ignored. Surely American archeologists have made relevant contributions to analytical procedures, to concepts of type and tradition, to settlement pattern studies, to epigraphy, to the interdisciplinary approach demanded by the deficiencies in the archeological record, and to fundamental digging procedures. All of this might be forgiven if it were not for the fact that the final section, "Suggestions for further reading," replete with excellent citations, does not include a single reference on New World archeology. The boycott appears to be intentional. It is all the more surprising, therefore, that the Harvard University Press produced the book to capture the American market. Had this book carried the title "A British Approach to Archaeology," the tenor of this review would have been quite different.

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Reprints

Baker, Robert H. *When the Stars Come Out*. Viking Press, New York, rev. ed., 1960. 182 pp. \$1.25.

Bridgman, P. W. *The Logic of Modern Physics*. Macmillan, New York, 1960. 242 pp. \$1.25.

Butterfield, H. *The Origins of Modern Science, 1300–1800*. Macmillan, New York, 1960. 252 pp. \$1.25.

Braithwaite, Richard B. *Scientific Explanation*. A study of the function of theory, probability and law in science. Harper, New York, 1960. 384 pp. \$1.85.

Collis, John Stewart. *The Triumph of the Tree*. Vicking Press, New York, 1960. 276 pp. \$1.25.

Cowling, T. G. *Molecules in Motion*. Harper, New York, 1960. 183 pp. \$1.45.

de Broglie, Louis. *Physics and Microphysics*. Translated by Martin Davidson. Harper, New York, 1960. 286 pp. \$1.50.

Kruse, W., and W. Dieckvoss. *The Stars*. Translated by Ralph Manheim. Univ. of Michigan Press, Ann Arbor, 1960 (*Die Wissenschaft von den Sternen*, Springer, Berlin, ed. 2, 1954). 202 pp. \$1.95.

Lessing, Lawrence P. *Understanding Chemistry*. New American Library, New York, 1959. 192 pp. \$0.50.

Sutton, O. G. *Mathematics in Action*. Harper, New York, 1960. 252 pp. \$1.45.

Toulmin, Stephen. *The Philosophy of Science*. Harper, New York, 1960. 176 pp. \$1.25.

Van Melsen, Andrew G. *From Atomos to Atom*. The history of the concept atom. Harper, New York, 1960. 249 pp. \$1.45.

von Buddenbrock, Wolfgang. *The Senses*. Translated by Frank Gaynor. Univ. of Michigan Press, Ann Arbor, 1960 (*Die Welt der Sinne*, Springer, Berlin, ed. 2, 1953). 167 pp. \$1.95.

Weidel, Wolfhard. *Virus*. Translated by Lotte Streisinger. Univ. of Michigan Press, Ann Arbor, 1960 (*Virus: Die Geschichte vom Geborgten Leben*, Springer, Berlin, 1957). 159 pp. \$1.95.

Miscellaneous Publications

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

Basic Research Résumés. A survey of basic research activities in the Air Research and Development Command. Office of Technical Services, Washington 25, 1960. 334 pp. \$3.

Boletín de Geologica No. 3. Facultad de Petroleos, Departamento de Geologia, Universidad Industrial de Santander, Bucaramanga, Colombia, 1959. 77 pp. \$3.50.

Forest, Wildlife, and Recreational Resources. Atlas of Illinois resources, section 3. Division of Industrial Planning and Development, Springfield, Ill., 1960. 46 pp.

A Long-Range Forecast of United States Precipitation. Miscellaneous Collections, vol. 139, No. 9. C. G. Abbot. Smithsonian Institution, Washington, D.C., 1960. 78 pp.

National Interests in Antarctica. An annotated bibliography. Compiled by Robert D. Hayton. U.S. Antarctic Projects Officer, Washington, D.C., 1959 (order from Supt. of Documents, GPO, Washington 25). 137 pp. \$1.25.

Public School Finance Programs of the United States, 1957–1958. Misc. No. 33. Albert R. Munse and Eugene P. McLoone. U.S. Office of Education, Washington, D.C., 1960 (order from Supt. of Documents, GPO, Washington 25). 283 pp. \$2.