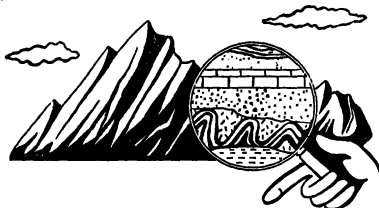


No review of Dr. Raisz's latest book would be complete without mention of the chapters dealing with the application of cartographic and related techniques to the presentation of statistical information. Many excellent methods of putting life into inert masses of figures have been described and illustrated. Statisticians, economists, and geographers will do well to study these chapters carefully.

General cartography is the work of a scientist and artist. It is a contribution to the subject of cartography and will play an important role in the development of the science.

WALLACE W. ATWOOD, JR.

Research and Development Board



Sedimentary rocks. F. J. Pettijohn. New York: Harper, 1949. Pp. xv + 526. (Illustrated.) \$7.50.

Sedimentary rocks, by F. J. Pettijohn, comes at an opportune time, 10 years after the last comprehensive volume on sedimentation was published by Twenhofel. Pettijohn's treatise is essentially a study of the products of sedimentation rather than its processes. The book begins by summarizing the general nature of sedimentary rocks and discussing their principal attributes: texture, mineral and chemical composition, structure, and color. A chapter on classification follows, and then the principal types of sedimentary rocks are described in considerable detail. The work concludes with a discussion of the processes of weathering, transportation, deposition, and diagenesis.

The general approach is well balanced and attention is focused on the more important aspects of sedimentation. Minor controversial features are dismissed with brief discussions or reference to pertinent literature. The 700 citations to previous literature are well chosen and up to date. Pettijohn's general appraisal of other authors' work is good, but he places more reliance on the validity of some inferences he cites than this reviewer would. The volume contains many tables on the chemical and mineralogical composition of sedimentary rocks. The illustrations are well chosen and include many graphs showing quantitative relationships of properties of sediments to one another. The index is moderately good.

This book is so worthwhile that any attempt to point out its weak parts is likely to overemphasize them with respect to the work as a whole. The discussion of black shale, ocean and lacustrine deposits, and the fundamental physical and chemical processes affecting sediments seems to be less effectively treated than other subjects; but on the other hand the discussion of glacial sediments, abra-

sion of particles, quantitative aspects of sedimentation, and applications of laboratory studies to the interpretation of sediments is extremely stimulating. The section on geosynclinal sedimentation is particularly interesting.

Pettijohn has proposed a new classification of sedimentary rocks, partly descriptive and partly genetic. Geologists may have mixed feeling over some of the names that are recommended. For example, to call a quartzose sandstone an "orthoquartzite" is likely to cause confusion, because of the well-established usage of the term "quartzite" in metamorphic geology. On the other hand, the designation of the term "graywacke" for an indurated feldspathic sand with a clay or chlorite matrix seems quite useful.

This volume, according to the author, is designed as a text for senior and graduate students. It is also a handy book for the mature worker and altogether represents a distinct contribution to geology.

PARKER D. TRASK

Oakland, California

Geology and paleontology. (Fiat Review of German Science, 1939-1946.) Ludwig Rüger, et al. Berlin: Office of Military Government for Germany, 1948. Pp. 246. (Illustrated.)

This volume is one of a series which, in the words of its sponsors, is intended to "present a complete and concise account of the investigations and advances of a fundamental scientific nature made by German scientists in the fields of biology, chemistry, mathematics, medicine, physics and sciences of the earth during the period May 1939 to May 1946." The series will include reviews of work on 44 subjects within these fields; some subjects, such as inorganic chemistry and applied mathematics, require five or six volumes.

Besides the present volume, the earth sciences are represented in the series by four volumes devoted to geography, one to mineralogy, and two to petrography.

The following have contributed reviews to Part I of the work (general geology): L. Rüger (geologic chronology; interior of the earth, vulcanism); D. Schachner-Korn (structural geology); K. H. Scheumann (petrotectionics of the Variscan and pre-Variscan crystallines on the northern border of the Bohemian Massif and in the Sudeten); A. Strigel (tectogenesis of the European and North African Variscan [Hereynian]); W. Carle (post-Variscan tectonics in central Europe); A. Bentz (salt domes, petroleum geology); W. Schott (recent deep-sea sediments); E. Stach (coal petrography); E. Blanck (weathering); and H. E. Stremme (soil science).

To Part II (formations) the following contributed: M. Schwarzbach (Cambrian); G. Solle (Devonian); A. Strigel (Carboniferous, Permian); W. Schott (Triassic, Weissjura); K. Hoffmann (Lias and Dogger); O. Seitz (Cretaceous); A. Schad (Tertiary of northwest Germany); E. Wirth (Tertiary of the upper Rhine Valley); and E. Ebers (Quaternary geology of the Northern Alps).

The third and last section, paleontology, is constituted as follows: H. Hiltermann (micropaleontology); M.