

BOOK REVIEWS

GEOLOGY OF THE ATLANTIC AND GULF COASTAL PROVINCE OF NORTH AMERICA, by Grover E. Murray, Harper and Bros., New York, 1961, xvii+692 pages, 573 illustrations, \$24.00.

Many geologists dream of making a contribution of this magnitude, but very few deliver. The author is professor of geology at Louisiana State University and is currently editor of the *Bulletin of the American Association of Petroleum Geologists*. Obviously he spent many thousands of hours in preparing this compilation; one wonders when he found time to get his chores done.

The statistics of the book alone justify its price. The volume measures 8 $\frac{3}{8}$ ×11 inches, which is only slightly smaller than the once popular quarto size. The pages total 729, including a 54 page index, which ranks among the best in its detail of coverage. The abundance of illustrations is shown by the fact that there are 573 for 574 pages of text matter.

The bibliography is a major contribution by itself. It takes 84 pages to cover the bibliography at the end of the text; in addition, chapters and sub-chapters are followed by "Selected Bibliographies" and in some instances by "Supplementary Bibliographies."

The area covered ranges from Newfoundland to Spanish Honduras. The discussion is not confined to the emergent coastal plain, for the adjacent highlands on the landward side and the submerged lands on the seaward side are also included. Major chapters are those covering the various phases of structural geology (including salt structures) and regional stratigraphy, which is the author's forte. Minor chapters are devoted to mineral resources, physiography, and climate, vegetation, and soils.

The chapters most likely to interest mineralogists are 5, on salt structures, and 7, covering mineral resources. The salt dome discussion is profusely illustrated with 109 maps and sections scattered through 75 pages of text. The treatment is almost entirely eclectic; for example, most of the cap rock discussion consists of extensive quotations from Ralph Taylor's report (*Louisiana Geological Survey Bulletin 11, 1938*). The more abundant of the cap rock minerals are included in this incorporation.

The mineral fuels, especially oil and gas, are of considerable importance in parts of the coastal area covered, so naturally they receive much more attention in the mineral resources chapter than the non-fuels. Among the industrial minerals and materials discussed are gypsum, salt, and sulfur; brief mention is also made of clay (including Fuller's earth), phosphate rock, and the placer minerals monazite, ilmenite, rutile, and zircon.

Although few people will ever read this book from cover to cover, a great many will refer to it across the years for its fine synopses and splendid bibliographies.

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PETROLOGY FOR STUDENTS (An Introduction to the Study of Rocks Under the Microscope), by Alfred Harker; 8th Revised Edition (1960), Cambridge University Press, viii+283 pages, 99 figures, paper bound, \$1.95.

It is uncommon that a textbook in science can preserve its distinctive character for a period of over sixty-five years, yet a comparison of this 8th revised edition with that of the 2nd edition of 1897 shows that much remains the same. In part, this reflects on Harker's excellent preparation in the basic disciplines and in part on his great care in describing accurately what he saw in clear and concise English.

This book has been used for training successive generations of geologists, mineralogists and petrologists, in the British Commonwealth and in the United States, in the fundamental elements of petrology. It has strongly influenced petrologic thought. Harker's