

cal facility to follow the detail of Cohen's specialist treatment. Despite his extensive use of appendices one has to search hard to find the not always quite explicit discussions of what the mathematics is actually addressed to. Since procedures are not in any case presented in all the step-by-step detail necessary for the relatively innumerate majority to apply them to data of their own, the influence of the book would surely be greater if Cohen had presented his models and their evaluation in a more intuitively comprehensible fashion and left almost all the quantitative treatment for appendices. At the very least a glossary of the terms and symbols used should have been provided, especially as their definitions are not always apparent in the text.

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A Coastal Tour

Our Changing Coastlines. FRANCIS P. SHEPARD and HAROLD R. WANLESS. McGraw-Hill, New York, 1971. x, 580 pp., illus. \$39.50.

Interest in coastlines is at an all-time high, and awareness of the importance of the coastal zone in the overall environment is definitely on the increase. Significant legislation has been introduced in Congress for the management of the coastal zone, and many states have adopted their own plans for the development of this important piece of real estate. The coastline, a significant part of the coastal zone, has received considerable detailed attention in the U.S. Army Corps of Engineers' recently released *National Shoreline Study*. The Corps's study provides a complement to Shepard and Wanless's *Our Changing Coastlines*.

Shepard and Wanless have attempted a comprehensive survey, suitable for the general reader, of the shoreline of the United States, including Alaska and Hawaii, and have documented coastal changes that have occurred during historical times. Information on the shoreline is coordinated so that some general conclusions may be reached about both the natural fate of the coast and its potential use.

As might be expected by students of coastal geomorphology, the authors have followed Shepard's classification according to which shorelines are regarded as

either primary or secondary. Primary shorelines are margins of the land that have scarcely been affected by marine processes; they are essentially in the same condition they were in when the sea came to rest against them. Secondary shorelines are those that have been modified by the action of waves and currents. This classification is based on an interpretation of the dominant process by which the coast has been shaped. Primary coasts include drowned river valleys, coastal areas dominated by glacial erosion and deposition, coasts formed by river deposition such as deltas, volcanic coasts, fault coasts, and drowned karst topography. Secondary coasts include coasts straightened by erosion, coastlines of marine deposition such as barrier islands, and coasts built up by animals and plants (coral reefs, mangrove swamps, and so on).

The authors describe the coast of the United States starting in New England and proceeding clockwise to Washington, Alaska, and finally Hawaii. The division into chapters is based on morphology—for example, "Glaciated coasts: New England and Long Island" and "Deltaic coasts: Louisiana." The discussion is primarily geographic. A great many illustrations, among them pairs showing sections of coast before and after such events as storms and earthslides, give graphic evidence of changes that have occurred; the book is profusely illustrated with vertical aerial photographs, charts, and oblique photographs. The style is informal; anecdotes and miscellaneous items of interest are scattered through the text. These serve to dramatize coastal events or to bring the human factor into coastal studies.

Because it has been impossible for Shepard and Wanless to visit every segment of the coast, they have based some tentative conclusions on aerial photographs and literature. This has resulted in some errors concerning particular sections. The authors readily admit such errors are possible. Each reader will undoubtedly find that his particular segment of the coast is not treated as fully as he would like. Completeness, of course, is impossible in a study of 84,000 miles of coastline in a single volume. The serious student of coastal geomorphology will wish that more geology were included and that literature citations were more numerous. The random, friendly style of writing may bother those who are used to reading of coastlines from more conven-

tional texts; to others it will be refreshing.

The price may keep a great many people who should have the book from buying it. The book will certainly make it to most libraries and to the shelves of those specializing in coastal processes and coastal geomorphology. Because of the beauty of production, it may find its way to the gift tables of bookstores. In one sense the book is a bargain; it presents more than 2000 miles of coastline for each dollar invested.

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Research on the Maya

Monographs and Papers in Maya Archaeology. WILLIAM R. BULLARD, JR., Ed. Peabody Museum of Archaeology and Ethnology, Cambridge, Mass., 1970. x, 502 pp., illus. \$13.50. Papers of the Peabody Museum, vol. 61.

Archeologists trace the evolution of cultural systems by analysis of stratified deposits. The volume under review can be viewed as a stratigraphic record of changes in research objectives and associated methods in Maya archeology over three generations. These changes reflect the increasing scope of fieldwork in the Maya area, as well as the correlated shifts in its theoretical and methodological underpinnings. It is impossible to summarize adequately the descriptive richness of this volume spanning over 30 years of survey and excavation by some of the most noted Maya archeologists. Yet one perceives differing ways of collecting, analyzing, and presenting data in the four parts devoted to major archeological programs.

The report of H. E. D. Pollock on a 1936 survey of the Chenes region of Yucatan represents the initial stages of systematic archeological research in a poorly known area. Pollock wishes to determine whether the region contains a distinctive cultural tradition. Is there such a thing as Chenes culture? If so, what is its chronological placement? Its geographical distribution? Its cultural affiliations? Since architectural styles are often used as diagnostic markers in defining regional cultural traditions, Pollock systematically describes attributes of Chenes style architecture from a large number of sites. Yet he reaches no definite conclusions