BOOK REVIEWS

Handbook of Coastal Processes and Erosion, Edited by Paul D. Komar. 1983. CRC Press, Inc., Boca Raton, Florida. 320p. $US70.00, outside US $80.50. ISBN 0-8493-0225-0

Studies of physical shoreline processes have made great strides in the last few years. After dabbling with statistical models in the 1960s coastal geologists and geomorphologists have focused on physically-based hydrodynamics to provide explanations. How successful this has been may be judged from this excellent compilation on coastal processes and erosion.

The book consists of fourteen chapters by thirteen contributors under the editorship of Paul Komar. All the chapters center on examining the mysteries of coastal change. Erosion in particular is usually considered an unfathomable Act of God by both and public and authorities. This book goes a long

way to remedying this view.

Approach varies from chapter to chapter, in some cases it is analytical (edge waves, computer models), in others technical (beach nourishment) and others descriptive or factual (barrier islands, various case studies). Both "soft" (beaches) and "hard" (cliffs) coasts are covered, inclusion of the latter makes a refreshing change. Most of the material is "recycled" rather than original. The slight exception to this being the outstanding summary of their seminal work on beach morphodynamics by Lynn Wright and Andrew Short. Some of their material was included in a University of Sydney technical report in 1982, but this is its first geniuine appearance.

Obviously both editor and authors have tried hard to make this a handbook. At times this becomes somewhat forced, especially in the edge wave chapter by Robert Holman. I feel that this chapter, on a difficult subject, coming right at the start of the book, might leave the uninitiated rather bemused. The case studies are interesting, but perhaps do not offer the insights into erosion problems that were intended, apart from reinforcing the lessons of caution and scientific appraisal. That two of the case studies are located on a coast described as atypical by Wright and Short is a mite unfortunate.

The two chapters on cliffs are very welcome. Sunamura's extensive review has been needed for years. He is to be congratulated on his thoroughness.

The problems of shoreline response to water level rise receive exhaustive coverage. Perhaps someone will explain one day why the Bruun Rule is such a beloved concept. Most Europeans find it blindingly obvious, hardly meriting the attention it gets. Notwithstanding, Hands' careful documentation of erosion in Lake Michigan is interesting, but possibly off-putting to those with less resources than the USGS.

In short the book is very good. There are very few errors — "model numbers" for "modal numbers" in chapter 2, and irritating subscript errors in chapter 7 were about all I spotted. There are one or two odd passages — Hands provides yet another incorrect definition of "ridge and runnel," and Nummedal's comment that "sea-level in Europe has fluctuated by one meter in last millenium" is a wild generalization. Maybe the book could have done with a chapter on long-term sea-level change, and another covering some of the ideas put forward by Silvester, Tanner, Leblond, *et al.* on shoreline equilibrium. But these are minor quibbles. A pity the price is going to restrict the volume to library sales.

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Coastal Ecosystem Management, by John R. Clark, Krieger Publishing Co., Malabar, Florida, 1983, 928p. $US56.50, ISBN 0-8987-456-3.

An updated and revised version of the 1977 edition (Wiley-Interscience), this book remains a classic in the field of coastal management. The volume is divided into seven chapters, the seventh being an amalgam of short contributed articles covering some forty different topics. The seven appendices likewise deal with widely ranging topics but provide cogent summaries. The tabular, graphic, and textual matter should assist planners and managers in technical aspects of program design and implementation. A glossary and subject index follow.

The chapters prepared by Dr. John Clark include Ecology (Chapter 1), Managing for Optimum Carrying Capacity (Chapter 2), Classification and Survey of Natural Systems (Chapter 3), The Management Framework (Chapter 4), Management Opportunities at the Local Level (Chapter 5), and Guidelines and Standards for Coastal Projects (Chapter 6). Chapters are clearly organized and feature sections that are headlined as "guidelines" and which are followed by recommended "implementations." This direct style thus focuses attention on possible solutions to problems facing the coastal manager.

Each chapter is well illustrated with line drawings and photographs. Many of the photos and some drawings have, however, suffered from reduction to fit the smaller page format of this edition. These over-darkened and blurred illustrations are fortunately the exception and not the rule,

The chapters are well documented by primary source materials but many of the references cite ephemeral literature (interim reports, leaflets, and various and sundry government agency documents). Here, there at least remains a permanent record of hard-to-find source materials. This is a credit to the volume because much of the ephemeral literature eventually gets lost in the shuffle, even by those of us that collect as many miscellaneous reports as possible. The numbered references are, however, an annoyance as they necessitate paging