

As two more books in a multivolume series called *Living with the Shore*, these efforts in volumes 6 and 7 deal with the Florida coastline. One of the longest coastlines in the conterminous United States, Florida has had its share of problems that are associated with beach erosion and overdevelopment in urban coastal corridors. Both books point out deficiencies in Florida's coastal development, citing notable examples of bad planning or cases of simply no planning at all. As the authors carefully point out, the days of commercial greed and avarice are not over but now, with the publication of these books, the public is becoming enlightened and developers can no longer say, "How were we to know?" These books should be required reading for all those that live in the coastal zone. This statement applies especially to Florida's part-time residents, the so-called "snowbirds" who make an annual sojourn from colder climes to come live along the shore only during the winter months, because they are often less familiar with coastal conditions than year-round residents. Nonetheless, these books apply to all coastal dwellers, whether they live in simple oceanside cottages or large condominiums.

The great value of these books lies in the fact that they were prepared for the layman, not the coastal engineer or oceanographer. The overriding concept of how to live with the shore is clearly presented for specific coastal segments. General or universal natural processes are adequately explained for the reader in terms that are immediately understood and appreciated. To this end, the authors have provided a great public service.

Both volumes are well-illustrated with photos, line drawings, and maps. The wide format lends itself well to the display of long coastal stretches and other sorts of illustrations. Indexes provide easy access to many topics or specific locations that are discussed or illustrated in some way. In addition, these books include detailed guidelines for building and buying at the shore with maximum protection for your investment and yourself; site-safety maps; up-to-date on land use and the law; ways to guard yourself from the hazardous effects of hurricanes; and guides to government agencies that are involved in coastal development that will be of value to the homeowner, planner, and developer. Admittedly, this is quite a potpourri, but the books live up to their titled banners. All in all, these books are good value for the money because they provide information that is only otherwise obtained from the school of hard knocks or from a

professional consultant. To live in the coastal zone and not to read either of the *Living with the Florida Shore* books may be living blissfully, at least for now. But in this case, as in other low-lying coastal areas, ignorance is not bliss. It is, rather, living dangerously.

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Breakwaters: Computer Aided Evaluation of the Reliability of a Breakwater Design, final report by the CIAD Project Group, Zoutermeer, P.O. Box 74, 2700 Holland, 116p. Approx. US\$ 30 (incl. mailing).

The Dutch report on *Computer Aided Evaluation of the Reliability of a Breakwater Design* (1985, by CIAD, Zoutermeer, Holland) has merits due to its suggested probabilistic approach to design. In the fault tree analysis all possible failure modes for the system failure are searched in a systematic way. A failure mode for a system failure consists of one or more components in a failure state. The smallest group of components that may introduce system failure is searched. The "reliability," the "life time," the "availability" which equals the probability that the component or system is in a function state at instant t , $A(t)$, and the "unavailability" $Q(t) = 1 - A(t)$ are important parameters.

The event tree is a logic diagram starting with an initiating event. It shows various sequences of events (accident sequences) leading to an outcome state, associated to particular consequences, some of which are identified as hazardous situations. The event tree methodology is useful in selecting significant accident sequences and provides the necessary framework for overall risk assessment, because it reveals the relationship of operation and failure of safety-related systems associated with various *accident consequences*. It also provides a mean to define TOP-events for system failure trees. Details of the analysis are given. But input data are often very difficult to obtain.

With respect to Geotechnical And Seismic Stabilities, including all aspects related to pore pressures, the report is very informative. So is the sec structural unit stabilities in the principle. The same tion on is not true for aspects of wave mechanics, and the report openly admits (p. 39) that no computer program is available for water flow on breakwaters—only results from physical model tests. The use of, at this time, outdated formulae based on

"Design Waves" as well as the use of some formulae of recent date which do not consider the importance of wave periods or of resonance conditions for the stability, although their importance is adequately proved by multiple researches and demonstrated in practice in numerous cases, are shortcomings of an otherwise excellent report attempting to reach down to the roots of a probabilistic approach.

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Coastal Sedimentary Environments, 2nd Edition, edited by Richard A. Davis, Jr., 1985, Springer-Verlag, New York, 716p. DM 134 (approx. US\$60). ISBN 0-387-96097-X.

The revised, and 296 pages longer, second edition of *Coastal Sedimentary Environments* is intended for student use and to provide the "comprehensive knowledge of coastal environments...necessary for a geologist, engineer, oceanographer, or coastal manager, or for other persons involved in the coastal zone". In this edition the chapter on *Coastal Bays* by R.B. Biggs has been retitled *Estuaries* and is now co-authored with M.M. Nichols, while J.C. Boothroyd's *Mesotidal Inlets and Estuaries* has become *Tidal Inlets and Tidal Deltas*. There are new chapters in *Intertidal Flats and Intertidal Sand Bodies* by G. deV. Klein and *The Shoreface* by A.W. Niedoroda, D.J.P. Swift and T.S. Hopkins.

Both editing and the synthesizing of research work in a specific field are fraught with difficulties. This reviewer's principal reservations have been largely anticipated by the editor in his Preface. These are: that the title is over-ambitious; that "The depth of treatment for each of these chapters shows some variation..." (as does the degree of revision between editions) and "Each of the chapters that covers one of the coastal environments can stand alone". The latter results in considerable repetition, not merely in the text, but also in the diagrams. Thus Figures 2.39 and 4.12; 3.1 and 7.3; and 6.38 and 10.11 are all substantially identical pairs. The level and philosophy of approach varies widely, with the chapters on *Estuaries* and *The Shoreface* assuming far more in terms of (hydrodynamics) background than elsewhere. Compare the treatment of tides by Nichols and Biggs with that of Davis!

There are far too many misprints. Some, such as

"entertainment" for "entrainment" (p. 28) are merely amusing, but proper names, at least, should have been checked: for example "Strokes" for "Stokes" (p. 100, twice); "Bridg[e]water Bay" (p. 269); *Amophila* (p. 318, twice, and p. 367); "Gibraltar," spelled correctly one and incorrectly five times; *Callianasa* (p. 430); and "Nordenney" for "Norderney" (p. 509). It is surprising to find the Thames included, along with the Amazon and the Mississippi, amongst the world's great rivers (p. 131); or Barry Links, Scotland, as Barry, England (p. 313). Units, too, seemed to have caused problems, e.g., p. 686 where there is a river 200 m wide with a sediment supply of 50 tons a day per foot of stream width; or μm and μ (both used on p. 100). However, as in the first edition, it is the diagrams which cause the greatest problems, with levels of shading no longer adequately differentiated, or letter overreduced (e.g., Figures 2.27b, c; 2.35; 3.7; 3.8). Sometimes, in abstracting diagrams from other sources, background explanation has been omitted (e.g., Figure 1.35) or extraneous detail included (e.g., Figure 7.51).

In spite of its wide-ranging title, *Coastal Sedimentary Environments* is often parochial, being restricted not merely to the United States experience but to the eastern and southeastern seaboard alone. *Coastal Salt Marshes* draws mainly on examples from Georgia, while *Tidal Inlets and Tidal Deltas* has some two dozen photographs of the Park River and Essex estuary! Generalizations are often made on inadequately representative data, e.g., Davis' conclusions regarding pebble and cobble beaches (p. 399). Terminology also causes problems, e.g., in Davis' chapter in the use of "gravel." We are probably, unfortunately, now stuck with the word "shoreface" in the sense used by Niedoroda *et al*.

To end on a more optimistic note. The chapters by Nichols and Biggs, and Niedoroda *et al*, which are the principal hallmarks of this edition, enable a considerable overall improvement on the initial publication. The long bibliographies are especially welcome. Yet even here there must be reservations. For example, Niedoroda *et al* (p. 569) seem to imply that quite minor erosion of the coast can be readily identified as accumulation on the sea floor; while their reference to Niedoroda *et al* (1984, p. 540) gives the impression that they originated the concept of logarithmic velocity profiles for analyzing tidal currents. A 6-second period is quite short for ocean waves (p. 536). Do terms like "cum sole" (p. 542) or "half pendulum day" (p. 539) aid in the