

Coastal Problems: Geomorphology, Ecology, and Society at the Coast, H. Viles and T. Spencer, 1995. New York: Wiley, 350p. ISBN 0 470 235 225 (Hb), \$59.95; ISBN 0 470 235 195 (Pb), \$31.95.

This collaborative effort attempts at a holistic approach to the understanding of coastal problems. Emphasis is on integrating coastal geomorphology, ecological workings, and social needs. The main point of the book is that coastal problems cannot be fully understood without a detailed understanding of the workings of coastal biogeomorphological systems. Heather Viles is a Fellow of St. Catherine's College, University of Oxford, and Tom Spencer is a University Lecturer in the Department of Geography, University of Cambridge, and a Fellow of Magdalene College in Cambridge. Viles and Spencer acknowledge geographer David Stoddart for his continuing inspiration, and in particular, for introducing them to the wonders of the tropics—a region from which they pull many coastal examples.

The book has eight chapters: Chapter 1, *The Coastal Context*, lays the groundwork by identifying the major coastal problems, providing fundamental characteristics and principles of the coastal zone, and introducing various approaches to the study and solution of these coastal problems. For example, Viles and Spencer note that Geographical Information Systems (GIS) is an increasingly attractive method to present a number of different solutions, but the problem with GIS-style applications is that they assume that coastal landforms are passive. The authors remind us throughout the book that... "it is unrealistic and unhelpful to consider the coast in such a passive way" (p. 16). The coast is far too dynamic and thus complex. In Chapter 2, *How Coasts Work*, they build on this concept by discussing the fundamentals and dynamics of coastal systems, such as plate tectonics and coastal type, global warming and sea level rise, wave processes in the shore zone, the influences of tides, and coastal ecology.

Chapters 3–7 are more formula driven, using Inman and Nordstrom's (1971) coastal classification scheme. These chapters describe the nature and distribution of different coastal environments—Chapter 3, *Sandy Coastlines: Beaches and Dunes*; Chapter 4, *Rocky Coasts: Cliffs and Platforms*; Chapter 5, *Coastal Wetlands*; Chapter 6, *Coral Reefs*; and Chapter 7, *Cold Coasts: Permafrost, Glaciers, Sea Ice and Fjords*. Each chapter discusses the characteristics, processes, environmental problems, and potential solutions peculiar to that coastal environment. Furthermore, there are two or more case studies in each chapter to exemplify the complexities involved, with the point always being made that there are no easy solutions and that one must begin by understanding the complex, physical basis of coastal problems. Their final message, however, is made in Chapter 8, *Managing the Coast: Coping with Coastal Problems*, that an understanding of the physical basis of coastal problems is not enough. One must also deal with the equally complex social constraints on human interactions with the coastal environment, i.e., the social, cultural, political, legal, economic, and ethical ramifications of coastal resource management.

The major strength of the book is that it addresses the causes and manifestations of, and some possible solutions to,

a range of coastal problems from a physical geographical perspective. Anyone interested in a good introduction to coastal geomorphology will get their money's worth. Additional strengths of the book include its international perspective, its excellent use of case studies, and a reference list of over 500 items. Furthermore, all maps, diagrams, and photographs are crystal clear. This is a handsomely constructed book.

If there is a weakness in this book, perhaps it is the book's subtitle—"Geomorphology, Ecology, and Society at the Coast." It gave this reader the impression that these three elements—geomorphology, ecology, society—would be equally treated, which they are not. Two-thirds of this book is clearly coastal geomorphology, with only one third [or less] devoted to the complexities of ecological fundamentals, societal demands, and management alternatives. The authors do acknowledge on page 3, however, that no one book can "... address all sides of the problem in sufficient and equal detail." I certainly agree!

Although I personally would have liked to see a more balanced presentation, *I still like this book very much*, and have already recommended it to my undergraduate and graduate students pursuing an emphasis in coastal resource management. If you are a geographer, geologist, or environmental scientist looking for an upper division textbook that stresses the geomorphologic perspective on coastal management, you should take a serious look at this highly readable and appropriately priced book.

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Holocene Cycles—Climate, Sea Levels, and Sedimentation: A Jubilee Volume of the Journal of Coastal Research in Celebration of the 80th Birthday of Rhodes W. Fairbridge (Special Issue No. 17), Finkl, C.W., (ed.), 1995. Coastal Education and Research Foundation, Fort Lauderdale, Florida, 402p., \$60; ISBN 0-938415-06-9.

In honor of the eightieth birthday of renowned geologist Dr. Rhodes W. Fairbridge, the *Journal of Coastal Research* has dedicated this voluminous hardcover edition to a field in which he had considerable influence: the study of Holocene cycles. Including an introduction by the editor, a foreword by Fairbridge, and a "Selected Bibliography of Short-Term Cycles" by Sanders and Fairbridge, the volume consists of 49 chapters, written by authors from several countries and academic specialties. Each of these chapters (excepting the three mentioned above) is written in review article format, and consists of either original research by the author(s), a summary of the author's previous research, or a general literature review. The book is subdivided into four parts: Part A, entitled "Climate, Proxies, and Chronology"; Part B, entitled "Holocene and Late Pleistocene Eustasy and Climate"; Part C, entitled "Sea Level, Neotectonics and Technoeustasy"; and Part D, entitled "Solar, Luni-Solar and Planetary Cycles".