

Section 2. 'What to look for when investing in coastal land or property' is a guide for purchasers and gives practical advice on selecting a site and involves the use of a vulnerability index which the layman can use to assess risk of specific sites. The vulnerability index compiles information on site elevation, landform type, wave exposure, time since last hurricane etc to rate the vulnerability of a site. It is logical, easy to use for the layman, and is designed to aid decision-making when purchasing a site.

Section 3 is an addition in which practical steps are outlined by which residents and visitors can improve the quality of beaches. These include many environmentally friendly activities such as beach clean-ups, adopt-a-beach, participating in environmental education initiatives etc. Given the rest of the books preoccupation with defending property and the rights of property owners this sits somewhat uncomfortably with the rest of the book.

One cannot help but wonder whether, as is the possibility with such practical guides, that property owners, potential purchasers and developers on reading this book will be selective in their use of the information and will transform beaches into seawall-lined promenades fronted by open water, beach remnants or artificially nourished beaches. The message of the book could be interpreted as 'erosion is a problem but it can be avoided if you buy the right property and if not, we can fight it.' The consequences of rock-armouring are skimmed over without adequate attention to the implications for beaches—the lay reader will not readily ascertain that rock armouring may transform a beachfront property into a seafront property. The soft engineering approaches are portrayed in a poor light (nourishment excepted) and the statement (p.84) that 'you get what you pay for' in coastal defence is only likely to promote ever more heavy engineering 'solutions' to erosion.

As a guide to property owners this text provides a ready reference on means to help protect and develop one's land. It is not a general coastal (or beach) management guide, nor does it set out to be. If its aim is to promote development of the littoral fringe in the Caribbean islands, it will undoubtedly help developers assess the risk and likely costs of sea defences. In reviewing this book one must constantly be aware of the legal background as it relates to planning and environmental management and it is stated that many island states give the right to protect ones land to property owners. Faced with this overarching control, the book offers practical steps for coastal property owners. In so doing it highlights a need for small islands to embrace the concepts of managed retreat in future policy initiatives. With the current legal situation, the advice provided here could unwittingly promote the transformation of Caribbean beaches into rock-armour-lined coasts where property owners 'cope with beach erosion' but where the environment deteriorates as a result. On the other hand, it may dissuade buyers from purchasing coastal plots in erosion-prone zones and in that regard permit the coast to fluctuate free of human interference.

Andrew Cooper  
Coastal Studies Research Group  
University of Ulster  
Coleraine

**Holocene Land—Ocean Interaction and Environmental Change around the North Sea.** Shennan, I. & Andrews, J.E. 2000. Geological Society, London, Special Publications 166. 336p., 180 illustrations.

This book is based on the findings of the UK Natural Environment Research Council funded LOEPS (Land-Ocean Evolution Perspective Study) research project. The blurb on the back cover states that the book is split into four sections: techniques; Humber catchment; other areas within the studied region; regional scale analysis. These divisions are not highlighted in the contents page or inside the main text of the book. Not that it is really a problem, allowing the entire contents to be displayed on one page.

In the first chapter Shennan and Andrews explain the history of the project and the layout of the book. I will not go through each of the fifteen chapters in detail, rather just highlight some points of interest. The 'techniques' section starts with the chapter by Ridgeway *et al* (14 authors in total) who looks at the techniques used in the interpretation and analysis of the sedimentary sequences in the Humber Estuary. This is a good idea as it saves each of the individual chapters having to go into their methods in details, instead referring to this chapter. It cuts out repetition and improves the readability of the book. It also provides a very useful chapter for other researchers to refer to if they are interested in sediment analysis techniques. Their table 1 spans four pages, and is an impressively useful and comprehensive account of the techniques highlighted in the chapter. The techniques are listed horizontally with entries under the following for each technique: Technique, Purpose, Methodology, Output, Interpretation, Benefits, Constraints and References. I found this particularly useful. Hoerton *et al* present a chapter on the implications of a microfossil-based transfer function in Holocene sea-level studies. Baliff and Tooley look at luminescence dating of fine-grained Holocene coastal sediments. Clarke and Rendell give a very good overview of what luminescence dating is, and how it works. They then present their new methodology for dating Holocene sediments from the land-ocean interface.

'Humber Catchment' section includes a range of chapters, but predominantly on the estuary itself. Macklin *et al* present a fascinating paper on environmental change in the Ouse basin, and its influence on river dynamics and sediment fluxes into the Humber Estuary. I read this with interest, as York is currently in the thick of the November 2000 River Ouse flooding. Rees *et al* consider sediment storage and provenance in the Humber Estuary. Andrews *et al* produce a storage inventory of organic carbon and sulphur in the Humber Estuary over the Holocene. Comparisons with modern values allowed the impacts of development (e.g. landclaim) over the past three centuries to be assessed. The colour in diagrams 11 & 12 add value, as black and white would probably have resulted in a bit of a clutter. This chapter concluded by highlighting potential implications for the future management of the Estuary.

Plater *et al* start off the section on 'other areas' with their chapter on sediment provenance and flux in the Tees Estuary. Orford *et al* highlight the importance of coastal dunes as

natural forms of coastal defence and stress their transitional nature over time. Andrews *et al* use the context of Holocene sea level change to study the sedimentary evolution of the north Norfolk barrier coastline. It is an interesting paper that is well illustrated with numerous logs and cross sections adding clarity to the text. Their results show that the north Norfolk saltmarshes have kept pace with the relative sea level rise of the last 6-7 ka. They use work by French (1993) to suggest that they may be able to keep up with future accelerated relative sea level rise, but do warn of other changes to the geomorphology. They close their paper by highlighting a number of coastal management issues. Brew *et al* present work on the palaeocoastlines and Holocene sedimentary evolution in the Fenland embayment of eastern England.

The final section on 'regional-scale analysis' has two papers, both of which have Shennan and Lambeck as authors (amongst others). The first of the papers considers Holocene isostasy and relative sea-level on the east coast of England and the second discusses modelling the western North Sea palaeogeographies and tidal changes during the Holocene. Both of these papers are heavily illustrated, the former having twenty seven figures, and the latter containing a number of colour figures of palaeogeographic reconstruction for the North Sea as a whole, and at a higher resolution for the south west of the North Sea.

When glancing down the contents page you cannot help but notice that the editors names come up as authors in the chapters rather regularly. In a compilation like this you would expect it to some extent, but there are only seven chapters in which at least one of the editors are not authors. However, this does not appear to devalue the worth of this book. There is no doubt that it provides a substantial contribution to the field of geomorphology, and I have learnt a lot more about the interface between land and ocean, particularly around the eastern English coast. As with most of the Geological Society publications I have reviewed before the index appears accurate, even picking up a geographic region noted in a graph inside a map. I am glad to have had the chance to have reviewed this and believe it will hold a well used position on my book shelf.

#### LITERATURE CITED

FRENCH, J.R. 1993. Numerical simulation of vertical marsh growth and adjustment to accelerated sea level rise, north Norfolk, UK. *Earth Surface Processes and Landforms*, 18, 63-81.

Derek McGlashan  
Department of Geography  
University of Dundee

**Handbook of Beach and Shoreface Morphodynamics.** Short, A.D., (ed.), 1999. Chichester: Wiley, 379p. ISBN 0-471-96570-7 [US\$ 160.00]

This compilation, edited and co-authored by Andrew D. Short, contains fourteen chapters that are organized into five groups of related topics. The five parts feature discussion of

the following topical areas: (1) beach systems: definition and scope, (2) global variation in beach systems, (3) beach morphodynamics, (4) beach systems and impacts, and (5) large scale beach behavior. There are nine contributors to the volume, including Andy Short. Interestingly, all of the contributors were at various times part of the Coastal Studies Unit in the School of Geosciences at the University of Sydney from 1976 through 1998. Each of the contributors has, in his own right, become a world authority in coastal research and this fact alone makes the volume noteworthy. The contributors and their respective chapters are as follows: Andrew D. Short (Chapters 1, 2, 7, 9, 10, 11, 12, 13); Peter J. Cowell, David J. Hanslow, and Justin F. Meleo (Chapter 3); Troels Aagaard (Chapter 4), Gerhard Masselink (Chapters 4, 8, 9); Michael Hughes (Chapter 5); Ian Turner (Chapters 5, 8); and Patrick A. Hesp (Chapters 6, 11, 12, 14). The chapters in the various parts are as follows: (A) Chapter 1, Beaches; Chapter 2, Global Variation in beach Systems. (B) Chapter 3, The Shoreface; Chapter 4, The Surf Zone; Chapter 5, The Beachface; Chapter 6, The Beach Backshore and Beyond. (C) Chapter 7, Wave-Dominated Beaches; Chapter 8, The Effect of Tides on Beach Morphodynamics; Chapter 9, Embayed and Structurally Controlled Beaches. (D) Chapter 10, Beach Modification: Natural Impacts on Beach Morphodynamics; Chapter 11, Beach Ecology; Chapter 12, Beach and Dune Stratification; Chapter 13, Beach Hazards and Safety. (E) Chapter 14, Barrier Morphodynamics. From the list of topics, it is clear that the book covers a wide range of topics and yet is quite specific. The scope is narrow but the coverage is broad within the universe of beach morphodynamic topics. Each chapter is carefully organized and there is coherence between chapters, and even some cross-references between chapters that refer the reader to related topics. Andy Short is to be congratulated for maintaining uniformity of style throughout all of the chapters, including those in which he is not a co-author. The book thus reads well because the style of presentation and writing is consistent from one chapter to the next, an important consideration in multi-authored works.

The quality of halftones throughout the book is very good. Most of the photos are not overly reduced and I found them to be informative and illustrative of the points being made. There are numerous tables throughout the book that provide essential information in an easily understandable format. Many are combined with line drawings in an effort to illustrate morphodynamic interrelationships. Tabular data is fine, but many readers are image oriented and the authors have gone a long way to assist understanding in different formats.

For researchers interested in coastal morphodynamics and classification, this book is essential reading. If it were not for the outrageous price of the book, I would like to use it as a textbook in a graduate course. But, I would not expect students to cough up that much money for a text. Even for professionals who are used to spending more than one hundred dollars for a book, the price seems very steep. Regardless of the price, the book to me is indispensable and a required part of any serious researcher's library. It is impossible to single out chapters that are better than others. All of the chapters are good and evaluation of content comes down to the kind