

Findings are based on both referenced materials and author assertions, a nice balance. For example, one option to alleviating tourism impacts is touted to be spreading the tourist season. The authors assert that the island and residents alike require respite from tourists as a "much-needed winter break."

Recommendations emphasize enhancing the quality of life in Bermuda through raising the quality of tourists, service offered, economic diversification, and education of tourist and resident. One important recommendation is the need to enhance environmental quality for residents rather than solely for tourists, since Bermudians will not demand higher quality until their self-image is enhanced. One quibble is the lack of cross referencing between pertinent items such as the impact of riots on tourism appearing in the chapter on health. Other chapters are written in this same easy-to-read vein. As seemingly complete as this book appears, there are two important omissions: one, the book contains no chapters on Bermudian institutions and their decision-making system; two, the book's thirty-six authors do not include business executives, worker leaders, racial leaders, military commanders, or a spectrum of politicians. The former would have related how and why people decide as they do on Bermuda's people and environment, while the latter would have included those responsible for implementing past decisions and the present recommendations.

The authors represent concerned elites, educated for the most part in environmental sciences. Alerting people to a problem is as insufficient to resolve it as passing a law. Thus, their book does not reflect the cross-section of Bermuda residents needed to substantiate their claim to global leadership. However, thanks to this book, I look forward to watching how well Bermuda's delicate balance is maintained and, presumably, enhanced over time. In fact, as a global participant, my appetite has awakened for my first visit to Bermuda! The question for me is how to get there without fouling their air or water, much less the cost to me.

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Coastal Design: A Guide for Builders, Planners, and Home Owners, by Orrin H. Pilkey, Sr., Walter D. Pilkey, Orrin H. Pilkey, Jr., and William J. Neal, 1983. Van Nostrand Reinhold, New York, 206p. US\$ 25.00, ISBN 0-442-27718-18.

Afficionados of the laid-back Floridian lifestyle will appreciate this book. The volume oozes nostalgia,

recalling Jimmy Buffett, boiled peanuts, white sand and condominiums. I remember my first visit to St. Georges Island, down on the Gulf of Mexico. As an innocent European, I was appalled to see acres of bare sand, neatly sub-divided into lots, all begging for development. Eventually having traversed and criss-crossed the coast from Cape Cod to Padre Island, I decided nobody cared. But they do — this book proves it. Pilkey, Pilkey, Pilkey, and Neal (sounds like a long-established law firm) have written a super book. Only the price is wrong, at \$25.00 it is too cheap — suspicious coast dwellers will not believe that for such a small outlay they can have such good advice!

What's the book about? In a nutshell it sets out to provide a guidance manual for people living on, or intending to live on the coast. It covers marine erosion, storm hazards, weatherproofing, design standards, advise on insurance, how to evacuate when the hurricane approaches, etc. I particularly liked the set questions to ask your realtor. I can just imagine lots of apoplectic developers with unsold duneland.

The book is well-written, has plenty of pictures, diagrams, information (tables, addresses), a bibliography, glossary, and index. The text includes a number of thought-provoking examples. Altogether a really useful book. An excellent investment for beach bums, nautical wheelers, condo-owners, and everyone interested in relaxed coastal living.

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Galapagos, edited by R. Perry, 1984. Pergamon Press/IUCN, 336p. UK£ 14.95, US\$ 23.95, ISBN 0-08-027996-1.

This multi-author book forms part of a series which 'aims to identify environments of international ecological importance, to summarize the present knowledge of the flora and fauna, to relate this to recent environmental changes and to suggest, where possible, effective management and conservation strategies for the future' (Treherne). The Galapagos are widely recognized as of prime importance to biologists, partly because of the historical association with Charles Darwin and partly because the peculiar flora and fauna has survived the arrival of man better than those of many other oceanic islands. The story would have been very different if the islands had had more potential for

agriculture. Over recent years a happy linkage has arisen between the development of tourism and the establishment and growth of an effective conservation service, backed up by the international Charles Darwin Research Station. Most of the islands' area now falls within a national park and there are hopes that this will be enlarged to include the nearshore marine zone, which, like the land, is very rich in endemic species.

I judge that this book has achieved its objectives. There are nineteen chapters, most dealing with different taxonomic groups. A wide variety of approaches is used by authors, reflecting the imbalanced state of knowledge about different groups. This diversity in no way detracts from the value of the book which I found of interest throughout.

Biologists naturally search for explanations in terms of evolutionary advantage to account for the behavioural or morphological characteristics of organisms. Thus, it has been suggested that continuous breeding in many Galapagos seabirds is prevented because the gonads need time to recuperate after breeding (. . . or perhaps to provide time for the replacement of the main wing and tail feathers). Again, the tree habit of many *Opuntia* (cactus) species may be because of browsing by tortoises (. . . or perhaps is due to long-term interactions with other woody plants). Finally, in an example highlighted by Bowman, inter-island differences in food resources are held to be sufficient to explain morphological variation in mockingbirds (. . . but population ecologists invoke competition to explain the similar morphological variation among the finches, which live on the same islands as the mockingbirds). The apparently arbitrary nature of many hypotheses advanced to explain 'adaptations' will not aid the evolutionists' cause in the public eye. Bowman is rash to associate opposition to the ideas of organic evolution with anti-intellectualism and dogmatism (p. 280). As he himself admits, scientists can be just as dogmatic as creationists.

There have been some notable advances in knowledge about the evolution of life on the Galapagos since Darwin's time. Thus, the age of the islands is reasonably well established by radiometric measurements, it is now certain that the islands have always been detached from the continents and have been colonized by organisms with good cross-sea dispersal, the relationships between some related taxa have been clarified by electrophoresis (with, for example, a new understanding of the relationships of the tortoises on the various islands) and now there is fossil evidence of natural extinction

and immigration. the Galapagos have been and, thanks to effective conservation, are likely to remain a major outdoor laboratory for students of ecology and evolution.

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Severn Barrage, published for the Institution of Civil Engineers by Thomas Telford Ltd, London, 240p. £22.00, ISBN 0-7277-0156-8.

This volume represents the proceedings of a symposium organized by the Institution of Civil Engineers in October 1981 following the appearance of the report by the Severn Barrage Committee chaired by Sir Herman Bondi. Because most of the participants in the symposium were engineers, not all aspects of the Bondi Committee report were addressed. In particular, the biological consequences of environmental changes resulting from construction or operation of the barrage were not considered. Nonetheless, the 22 papers that constitute this book provide a brief but comprehensive account of physical, environmental, engineering, and economic aspects of the proposed Severn Barrage development — often by the same author who prepared the much more voluminous and detailed reports for the Severn Barrage Committee. It is thus of particular value to those interested in other aspects of tidal power, rather than to engineers themselves, who presumably would find the original reports more informative.

The papers are organized into several sections, dealing respectively with: background information on the Severn proposals and data collection programmes for tides, currents, waves, geology, and sediments (5 papers); mathematical models (3 papers); plant design and transmission aspects (4 papers); caisson design and construction (3 papers); embankments and lock facility designs (2 papers); sediment movements and water quality (3 papers); and economic perspectives of tidal power (2 papers). At the end of each section is a discussion.

Judging by this volume, harnessing of tidal power from the Severn Estuary is technically feasible, and detailed examinations of plant and barrage design, and transmission aspects, are well under way. Significant decisions still have to be made before the final acceptability of the project can be determined. These include the choice of turbine (bulk,