of the policies confronting the professional in this area. The limited analysis addressing competing and conflicting uses of the marine environment and the near absence of integrated analysis makes it less valuable as a general reference on U.S. marine policy during the latter part of the 20th century.

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Port and Ocean Engineering Under Arctic Conditions, W.M. Sackinger and M.O. Jeffries, (eds.). The Geophysical Institute, University of Alaska, Fairbanks, 1988. Volume I, 763p., $95; Volume II, 124p, $24; Volume III, 707 p., $90 (No ISBN given).

The decade 1977-1987 brought an intensive set of engineering and scientific advancements in the Arctic, motivated by the promise of Arctic petroleum, and a newly-recognised public need for understanding of the Arctic environment as part of a global system. This three-volume book provides a full-breadth overview of recent observations, combined with current theory, computer modeling, and laboratory simulation. It contains 131 refereed papers that are an outgrowth of an historic symposium of the same name held in Fairbanks, Alaska. This hardbound edition is an indispensible compendium of data and current theory for the Arctic engineer and polar researcher, and acts as a major step in assimilating the results of a decade of engineering research into a future strategy for rational and selective Arctic devleopment.

Civil and mechanical engineers, ocean engineers, oceanographers, meteorologists, physicists, geographers, mathematicians, geophysicists, geotechnical engineers, marine biologists, and environmental scientists make up the 254 professionals who contributed to the three-volume set. Published a year after the meeting, the papers retain the significance of a decade of research while giving the authors time to polish and reflect upon their manuscripts and the comments elicited at the meeting. The general organization of Volumes I and III cover sea ice properties, ice morphology, sea ice remote sensing, climate, and forecasting, ice dynamics, ice/structure interaction, icebreaking vessels, Arctic materials, steel/concrete composite structural systems, spray ice, Arctic port design and construction, and Arctic/offshore database. Papers from a special symposium on noise and marine mammals are presented in Volume II, organized by J. L. Imm and S.D. Treacy. The editors have produced a set of handsome archival-quality volumes, with many color illustrations and photographs generously spread throughout the papers, an an elegant selection of supplemental color photographs in the opening pages of the third volume.

Port and Ocean Engineering Under Arctic Conditions is an extremely valuable contribution to the engineering community, and will undoubtedly stand as an historic landmark and guide to our future Arctic engineering endeavors.

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Late Quaternary, Sea-Level Changes and Crustal Movements in the British Isles, I. Shennan, (Ed.), 1989. *Journal of Quaternary Science,* Vol. 4, No. 1, pp. 1–89. Longman, Harlow, Essex CM20 2JE, UK, $61.00 (£30.00), ISSN 0267-8179.

This special issue of the JQS contains a series of original research articles, representing recent developments in sea-level research in the United Kingdom. It is the final contribution of the UK working group, one of the largest national groups of the IGCP Project 200 'Late Quaternary sea-level changes: measurement, correlation and future applicants', which came to an end in 1988. This issue includes, after an introduction chapter, a paper on Ireland, one on the Norfolk coast, four on Scotland and a review covering all Great Britain. It will be useful certainly to researchers and students interested in Quaternary processes, especially sea-level changes and isostatic movements, in coastal geomorphology, sedimentology and paleogeography, and in the British Islands.

In Ireland, Carter *et al.* discuss, with the help of new data, the regional differences in relative sea-level change which have occurred around