



## BOOK REVIEWS

**Manual on the Use of Rock in Coastal and Shoreline Engineering**, A. A. Balkema, 1991. 607 p. \$170.00.

This manual was prepared under a collaborative project carried out by CUR (the Netherlands Centre for Civil Engineering Research and Codes) and CIRIA (the UK Construction Industry Research and Information Association) during the period April 1988 to August 1991. The joint project was supported by the Netherlands and the UK governments. The manual was produced under the guidance of a joint Steering Committee comprising: M. E. Bramley (to September 1989), CIRIA; G. Stephenson (from October 1989), CIRIA; W. Leeuwestein, CUR; Secretary CUR-C67; K. W. Pilarczyk, Rijkswaterstaat; Chairman CUR-C67; and J. D. Simm, Robert West & Partners; Research Supervisor, CIRIA RP402.

The book has seven main chapters comprising an Introduction, and chapters on Planning and Designing, Materials, Physical Site Conditions and Data Collection, Physical Processes and Design Tools, Structures, and Maintenance. In addition there are seven appendixes out of which three are descriptions of rock specifications and standards, one on hydraulic data, one on instrumentation for the collection of geotechnical data, one on structure-monitoring techniques and finally one on European, British, Dutch legislation/authorities/designated sites relevant to environmental assessment of projects involving the use of rock in coastal and shoreline engineering.

The manual is well illustrated with 338 figures plus 44 in the appendixes, comprising diagrams, designs, and photos. It has 56 tables plus 86 "boxes" on design features. It is a monumental work by a great number of dedicated professionals, almost all Dutch or British, including government, companies and industries, plus one Canadian!

The strength of the book lies mainly in all aspects of materials and construction, and that should be understood literally. Here nothing seems to have been overlooked. The presentation is excellent, not the least Chapter 3 on Materials and Chapter 6 on Structures which include appendixes on selection and classification and testing

of materials, data collections, hydraulic and geotechnical aspects, monitoring and finally an appendix on laws.

It would be difficult to point out weaknesses in the above mentioned chapters or paragraphs which are well illustrated and further enlightened by tables and boxes including flow diagrams. The designer and the contractor will read them with pleasure and, probably, use them!

Other chapters are generally well written, but somewhat restricted by the limited distribution of authorships, geographically and by topics. This has put Americans, Canadians, Spaniards and Swedes (as examples) somewhat in the background, regardless of major contributions on wave mechanics, hydrodynamic interactions with structures of indisputable importance for stability of a mound structure. As a consequence the corresponding selection of wave data and analysis of same has been left without mentioning. The "replacement" is by a simplified "formula practice" as advocated in Chapter 5 and the corresponding omission of numerical models, apart from some scanty remarks. Wave groups are *e.g.* hardly mentioned (a few lines only) and not even found in the Index!! But they are still very important for the stability.

The references list 300 items, but suffer from the same shortcomings as mentioned above being (too) "domesticated." Regardless, it is a good book, which will serve designers and construction engineers for what it was intended to be, a manual.

Per Bruun  
Port and Coastal Engineering  
Hilton Head Island, SC U.S.A.

**Climate Change and the Mediterranean**, edited by L. Jeftic, J.D. Milliman, and G. Sestini, 1992. Edward Arnold, London, 673p., ISBN 0-340-55329-4.

A number of books have recently addressed the issue of greenhouse-gas induced global climate