see someone considering more than wind speed and direction in determining deflation rates. Hesp's contribution on coastal foredunes (one of the only four specifically coastal papers) is interesting, but I suspect some of his conclusions may not hold outside the Spinifex communities of southeast Australia. Rugg's paper on Quaternary coversands in Holland is welcome, but while I accept his ascertainment that this is a most neglected area of eolian sedimentology, I am puzzled as to why he has ignored the British work on the subject in his discussion, as this would appear to be 'closer' than many of the examples he cites.

Overall the book is well-produced, aside from a few blurred pages, which may just be my copy. It constitutes an important body of information on eolian sediments and deposits, and deserves to be widely used.

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Shoreline Protection is the proceedings of a symposium organized by the Institution of Civil Engineers held at the University of Southampton (U.K.) in September of 1982. A total of 27 papers comprise the volume grouped into 8 sessions: (i) general outline of the shore protection problem and administrative responsibilities; (ii) coastal zone planning and economics; (iii) short-term sea level trends, waves and littoral drift mechanisms; (iv) sediment budgets and stability and the use of vegetation in shore protection; (v) coastal protection-design, construction and maintenance; (vi) the effectiveness of groins and beach nourishment; (vii) structural form and materials, and (viii) coastal cliff stabilization.

The subjects and authors (ranging from practicing engineers, local government employees and academicians) were obviously chosen carefully to span a wide variety of coastal problems and phenomena. Consequently, the target readership is wide. In effect, the proceedings pertain to practically all concerned with the many aspects of the British coast.

Most of the papers are well-written and supplemented by meaningful diagrams. To look at a few: in Session 1, Trafford and Braybrooks provide a refreshing account of the background to shoreline protection in Great Britain. The authors have written in such a way that permitted me to make continual comparisons between the British and US coastal policies. Clark's review, in Session II, succeeded in doing what I have mentally attempted with Trafford and Braybrook's paper. Clark provides a review of the US Coastal Zone Management Act and emphasizes some past experiences. He constantly equates the US policies with those of the UK and suggests some implications for British policy review. While a commendable paper, a little too fragrant for my liking. Clark in my mind omitted an exceptionally important point; the CZMA appears attractive on paper at the federal level. However, the real proof of the pudding lies at the state, and, in particular, at the local levels of government. On scrutinizing the latter in the US, I think that one will find that some states (e.g., Alabama and Mississippi) tend more towards attaining economic stability than coastal management. However, abiding by Clark's philosophy, Britain should determine such inherent weaknesses and learn from the US mistakes. The three papers in Session III (Sea Level, Waves and Littoral Drift) were of particular interest to me in that they overlapped with my personal research bias. Pugh and Faull provide an interesting account of tides, surges and mean sea level trends around Britain and make the very important point that short-term sea level trends are poor indicators of longer term trends (a somewhat disconcerting thought for US engineers). Unfortunately, the following two papers ('Waves at Shorelines' by Professor Holmes of Liverpool and 'Littoral Drift in Relation to Shoreline Protection' by Bijker and Van De Graaff) were little more than a gross reiteration of what is already well-understood in nearshore dynamics. I found the latter two papers a little unnecessary in their present form although I admit that the general topics must be addressed in order to ensure completeness in the proceedings. Unfortunately, both papers are void of any meaningful application to shore protection. Session IV is, in my opinion, the most superior collection of papers in the proceedings. In particular, Clayton et al.'s discussion of sand budgets and policy alternatives for the East Anglian Coast is an example of coastal management at its best. Similarly the next 3 papers in Session V appear concise, well thought out and integrated, offering food for thought in terms of design, construction and maintenance of protection schemes. Brampton and Motyka open the next session (VI) on Groins and Beach Nourishment with a paper devoted to the effectiveness of groins. While the authors refer to it as being a "state-of-the-art" report, it most certainly is
not. Little reference is made to the pioneering work carried out by the US Army Corps of Engineers and the authors neglect the rudimentary fact that groin emplacement must be attuned to site specific nearshore dynamics. The remaining seven papers, comprising Sessions VII (Structural Form and Materials) and VIII (Cliff Stabilization) are of considerable interest and certainly serve to round off the entire proceedings nicely. Indeed I think that in many past symposia the importance of these aspects of coastal protection have never truly been exploited.

In summary, this is a good compilation, particularly valuable to those concerned with the many aspects of coastal protection in the UK. My only major concern is the obvious lack of attention paid to the many US shore protection schemes. The UK has the prodigious advantage of learning from mistakes made by the US. I recommend Shoreline Protection internationally to those working on similar problems on the proviso that they satisfy only their curiosity. By no means do I recommend it as a reference for abating coastal problems. My guess is, you simply will not find too many answers.

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Applied Geomorphology is a large book, beautifully printed on glossy paper. Written by one of the world's leading geomorphologists from a lifetime's field and professional experience in Asia, Africa, Europe and South America it is a major work on environmental science. Professor Verstappen is a doyen of the International Institute for Aerial Survey and Earth Science at Enschede, The Netherlands, to which come students from every continent for professional and academic training in cartography, aerial survey, geomorphology, resource planning and development, and from whence go its teachers to carry out contractual and private research likewise in many countries and environments. This book is built not only on Verstappen's own acquired wisdom and knowledge but also on that of his colleagues, students and, as the list of references at the end of each chapter shows, on a very large body of published material from scholars the world over. Applied Geomorphology is, then, an international text in its content, scope and application.

Verstappen sees the main application of geomorphology in the fields of geology, pedology, hydrology, vegetation and topographic mapping as these relate to the analysis and development of natural resources, the amelioration of environmental hazards, of rural development and urbanization and in civil engineering. Accordingly his book is subdivided into three sections. In Section A he explores the roles of geomorphology in the acquisition of knowledge about natural environments and resources by the different groups of earth scientists. Geomorphology and appropriate use of the natural environment is tackled in Section B with the foci being rural land use, urbanization, mineral resources and engineering. Section C, perhaps the heart of the book, is an illustration and analysis of geomorphological methodologies for use in planned developments. Here, the concept and practice of geomorphological surveys is expounded and then applied to the study of flood and drought susceptibilities, to slope stability and erosion surveys, to violent hazards such as avalanches, volcanic eruptions and earthquakes, and in terrain classification.

Throughout sections A and B, Verstappen is presenting primarily the conceptual and empirical bases for an Applied Geomorphology through a wide range of case studies whilst some appropriate methodologies and techniques are outlined in Section C. The contribution to geomorphology, environmental survey and resource development planning for which both Verstappen and ITC are justifiably renowned lies especially in the mapping of environmental properties and processes from a diversity of remotely sensed imagery and in the field. These emphases are clearly apparent in the book and their utility can be appreciated from the lavish use of air photographs singly, in stereopairs and stereotriplets, many annotated, of thematic and synthetic maps and of ground photographs. These examples and illustrations are drawn from a wide diversity of geographical environments mostly — but not solely — in the developing worlds of Asia, Africa, southern Europe and South America and help to foster in the reader an awareness of the massive problems faced by some societies and their earth scientists.

Some of the applications of geomorphology presented by Professor Verstappen lie outside the mainstream of his research and the work of the I.T.C. and, as a consequence, are handled with less facility than the others. For example the discussion