REVIEW: "Industrial Geology" edited by J.L. Knill, Oxford University Press, 344 pages, 1978, Price £9.50.

Text-books on geology are generally concerned either with presenting an overview of the story of the earth through geological time, or with one of the more specialised academic disciplines. It is difficult to extract from these a view of where the geologist can help in industrial processes. "Applied" geologists are all too often concerned with situations where publication of the case history is constrained by the clients' interests or by legal implications. At best, such case histories are presented in abstract, sometimes without a location being noted, or pruned to general statements. There is also an element of one consulting geologist not wishing to reveal too much of his secrets to others.

This book is a compilation by 13 authors (including the editor) of the principles behind various aspects of geology applied in industry. It should be required reading for all geology students and, more important, for most politicians, economists and planners as well, for often their pronouncements are made in a context of ignorance or non-appreciation of the effects of their chosen course of action.

After a general introduction the energy problem is put into perspective, in particular assessing the subtle differences between reserves, probable reserves and resources, and the way these change with time and technology. Chapters on the fuels follow, oil, gas and coal. The latter is split into two sections, underground and opencast, and as with many compendium type of books, the treatment is varied and in this case not as comprehensive as it could have been. By contrast the minerals industry gets a full discussion, with emphasis on the inter-related factors of low grade and high tonnage ores, problems of waste disposal, restoration of land, and the many legal and political constraints. This should be essential reading for planners! The chapter on the metallogeny of Britain (= origin of its ores) seems out of place though obviously an understanding of the origin of any ore may help to locate reserves. Chapters on aggregates, sand, gravel, stone and cement follow. Once again the inter-related aspects of geology and economics are brought to the fore and should be read by planners. Groundwater and its abstraction, and the construction industry provide much food for thought. The last two chapters are on geological hazards - how may one assess the possibility of disasters? - and on conservation - the necessity to preserve for posterity sections of our geological heritage, but at the same time to be realistic and realise that one cannot preserve everything.

Each chapter merits a discussion but space does not permit it. The book is easily readable, not too detailed and not too much jargon. It should be read by all those who have to make decisions on whether or not to open a new mine, quarry or well, whether to build a new reservoir, or whether alternative supplies can be found in someone else's backyard, as is all too often the pious hope of the local politician. Some chapters will leave you fence-sitting, but at least you will know which fence and how high it is. And much of the discussion is directly applicable to the Peak Park!

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