

text-book *Eruptive Rocks* did S. J. Shand use the term 'alkaline rocks' yet N. L. Bowen had a chapter headed 'alkaline rocks' and Daly also used the term extensively. This is probably because Shand defined the term 'peralkaline' and thought that the word alkaline was too vague or too closely associated with geographical subdivisions of eruptive rocks. This reviewer feels that the term 'alkaline rocks' has already been extended to cover too wide a spectrum of rock types.

Those who organize symposia generally like to have the papers published in one volume. For many years publishers did not welcome this type of publication but the situation appears to have changed and many publishers are quite anxious to publish collections of papers. A volume on the topic of alkaline rocks can be guaranteed to generate interest but it is difficult to know how such a volume should be priced. At one time it might be assumed that every University and departmental library might buy such a volume but this may no longer be true as the costs of journals and monographs continue to rise.

Despite these comments and minor criticisms this book represents a very useful addition to the geological literature: the editors are to be congratulated on their selection of papers and on the very useful introduction to the volume.

W. S. MACKENZIE

Kwak, T. A. P. *W-Sn Skarn Deposits and related metamorphic skarns and granitoids*. Amsterdam, Oxford and New York (Elsevier), 1987. xvi + 451 pp. Price Dfl. 215.00 (\$105.00).

A concise, yet universally agreed definition of the term 'skarn' has long eluded geologists. Most of us have a common feeling for what constitutes a typical skarn; the difficulty lies in deciding where to fix the boundaries. Hoping that this book would offer some insight to the problem, I immediately tackled page 1 under the heading 'What is a skarn?' Unfortunately this question was not answered until page 40, but at least the author immediately made it clear that his boundaries were going to be much broader than might normally be expected. Thus he considers not only the typical replacement of carbonate rocks, but also replacement of such diverse rocks as granites, hornfelses, and basic igneous rocks. (In this he seems justified, but the problems of terminology are compounded when he also decides to include greisens under the skarn classification!)

This book is, in essence, a compilation of the geological characteristics of tin and tungsten mineralisation associated with skarns and similar

replacement bodies. For this the author is to be congratulated, for his extensive research has brought together information concerning a variety of deposits from all over the globe. The book therefore constitutes a valuable source of information on this style of mineralisation, and will also be of relevance in the increasingly important study of gold-bearing skarns. Much of the text relates to the mineralogical and petrographic characteristics of the deposits but a certain amount of geochemical (including fluid inclusion and stable isotope) data is also presented. One aspect that continually appears in descriptions of skarns is the zonation of alteration assemblages. This is repeatedly described in the book but, despite the enormous advances in our understanding of the processes governing infiltration and diffusion metasomatism in recent years, the causes of these zonations are only covered in a superficial fashion. Another aspect which also could have been discussed in more depth is that of the source of the transporting fluids and ore components, particularly the roles of granites and magmatic activity as opposed to the influence of the surrounding country rocks.

The book has many diagrams and plates, but the text and references do contain an annoying number of mistakes. In summary, I consider the book to be a good reference source for this type of mineralisation but feel that it is rather lacking in any concepts concerning the genesis of the deposits. I certainly now know more about the diverse characteristics of this mineralisation but must admit to being even more confused about the meaning of terms such as skarn and greisen!

D. H. M. ALDERTON

McClay, K. *The Mapping of Geological Structures*. Milton Keynes (Open Univ. Press) and New York (Halsted Press), 1988. vi + 162 pp. Price (paper) £7.95.

This small book of 161 pages is another in the Geological Society of London Handbook Series. It is primarily aimed at undergraduate students as a basic guide to the field mapping of deformed rocks and the interpretation of the data obtained during such a project. However, the information as set out will make it a useful text for a much wider audience. The objectives of the book are admirable and, I think, are attained. The nine chapters are easy to follow and are logically set out. The final chapter giving guidelines for the first stages of analysis, interpretation and report writing, whilst not exhaustive, is particularly useful.

The book provides a step by step introduction to the techniques of mapping and the important data