

BOOK REVIEWS

Guilbert, J. M. and Park, C. F., Jr. *The Geology of Ore Deposits*. Oxford and New York (W. H. Freeman and Co.), 1986. xiv+985 pp. Price £29.95.

Several texts concerned with the geology of ore deposits are currently available to advanced level undergraduates but most have serious shortcomings. Usually they are not of sufficient detail or suffer from adopting an approach which has quickly become dated. This paucity of good textbooks means that new publications are examined with interest by teachers of the subject.

This book is essentially an update on the third edition of 'Ore Deposits' by Park and MacDiarmid. The text is essentially divided into two parts; the first concentrates on the broader aspects of the subject (nature of ore-bearing fluids, alteration, controls on deposition, isotopes, etc.) whilst the second, and larger, part deals with the full range of deposit types. On the whole the chapters are comprehensive, interesting, well illustrated (except for a difficulty in interpreting some scales), and contain good bibliographies. The overall tendency is more towards *descriptions* of deposit types rather than their *genesis*, but this latter aspect is not neglected.

Although the classification of deposit types reflects the increasing trend towards treating ore deposits as environments rather than simple commodities, more imagination could have been used. One is still left with the impression that a Lindgren-type classification underlies the divisions in the book. Thus the penultimate chapter is unfortunately entitled 'Epigenetic deposits of doubtful igneous connection' and includes Mississippi Valley-type deposits and roll-front uranium deposits.

Some sections are rather brief (e.g. ophiolites, sedimentary iron deposits) whilst others are detailed (e.g. subaerial and submarine volcanism). The last section is concerned with 'Metallogenic provinces, epochs and plate tectonics' but is far too brief to be of any real value (even though the authors state that this section has been expanded!).

Unfortunately, the text is marred by a proliferation of abbreviations which are not always easy to decipher—even using the index. Some can be guessed at after a pause for thought, for example PBMD (porphyry base metal deposit), LMI (layered mafic intrusion), PRC (People's Republic of China),

and BIC (Bushveld Igneous Complex). Others (Chuqui, moly, Wits) betray a slipshod approach to writing; they are terms which may be used in the mining industry but should not be encouraged in college students. One or two abbreviations take much longer to unravel. After much effort I found out the meaning of MECS-IF; am I the only one who did not know that it stands for 'metazoan-poor extensive chemical sediment-rich shallow sea iron formation'?

Overall though this is a welcome addition to reference texts on ore deposit geology. In my view it is timely and the best currently available, and should be recommended reading for all students in this field of study.

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Edwards, R. and Atkinson, K. *Ore Deposit Geology, and its Influence on Mineral Exploration*. London and New York (Chapman and Hall), 1986. xvi+466 pp., 222 figs. Price £40.00 (hardback); £19.50 (paperback).

The authors of this book have deliberately and successfully attempted to combine descriptions of mineral deposits and ore genesis with practical aspects of their exploration, evaluation and exploitation. There are already several textbooks targeted at undergraduate courses in mineral deposit geology but none of them has attempted to relate 'what's in the ground with how you find and exploit it'. All too often students of geology have difficulty relating information in geology textbooks to its application in the commercial world, but this book provides a flavour of some of the problems a geologist in mineral resource investigations might meet, and consequently, will provide students with a better appreciation of what is required of them in their future professional lives.

The introductory chapter establishes the authors' approach, presents several schemes for classifying ore deposits and outlines some of the important political, economic and technical factors pertinent to mineral exploitation. Perhaps it might, in view of the authors stated intentions, have been better to follow this introduction with a chapter on exploration strategies, techniques, and models, but, except for a brief mention in the introduction, these topics are postponed until the final chapter. Chapters 2 to