

evidence for their age and subsequent history; in others we are given details of the geochemistry of metasediments but only passing appraisal of their environments of deposition and their possible palaeo-environmental settings; in yet others we learn details of tectono-metamorphic history but little of possible stratigraphic relationships. Such a diversity of approach is understandable given the differing expertise of the authors and in many cases the problems of interpreting notoriously complex and enigmatic rocks but, for the general reader, such differing approaches, lack of connective tissue, and lack of clear purpose will be confusing.

In the editor's words this book is 'not the result of a specifically convened conference' but is instead 'a collection of specifically commissioned articles'. As such it has not benefited from a refereeing process and has not avoided the trap of being parochial. Including the Introduction the book comprises 18 articles 12 of which deal with rocks from Ireland and Scotland. Of these the editor is author or co-author of five. With notable exceptions it is the papers dealing with rocks outside of the British Isles that provide the most useful information.

Because of this parochialism, the omission of papers concerned with other parts of the N. Atlantic region, and the absence of articles dealing with palaeomagnetic constraints, the book's title and stated purpose are misleading.

Any attempt to synthesise the geological evolution of a region as complex and fragmented as the N. Atlantic borderlands during the Proterozoic is ambitious. It is however particularly so when, for the most part, our only indication of age is derived from very few and often questionable isotopic studies. This attempt clearly demonstrates the need for a dramatic increase in geochronological studies even though these are unfashionable to many of our isotope geochemistry colleagues. Though perhaps understandable, the existence of little and often poor quality isotopic data does not, however, excuse the potentially misleading

speculations concerning the age of geological events that are apparent in a number of articles in this book.

At nearly £70 the book is expensive. Despite this, and the drawbacks outlined above, it is useful as a source of information not otherwise readily available. Were it less parochial it would be of much greater value not only to students of later Proterozoic geology but also a much wider audience.

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Barnes, J. W. *Ores and Minerals: Introducing Economic Geology*. Open University Press. Milton Keynes and Philadelphia (Open University Press), 1988. viii + 181 pp., 81 figs. Price (soft-back) £12.95.

This is an elementary but informative text designed to introduce the more important aspects of economic geology to the non-specialist undergraduate student. The first half of the book is concerned with the nature and properties of ores and ore minerals and how such deposits are extracted. The main features of metalliferous ores in sedimentary, volcanic and intrusive rocks are described, together with a summary of exploration methods used to identify such deposits. The second half of the book deals with the geology of fossil fuels, geothermal energy resources, industrial minerals, and the most vital resource of all, water. An essential theme of the book is the role of the geologist in identifying and developing the Earth's mineral resources. The explicit style and clear graphics will appeal to the non-specialist student; however, the absence of a glossary is surprising since such readers will encounter many new terms and concepts. The level of information provided and broad coverage of subject-matter will ensure that this text will be widely adopted in A-level and first year degree level courses.

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