

to take account of experimental data which indicates that the pressures required for plagioclase elimination in different lithologies vary by as much as 16 kilobars or of the crucial influence of water activity on the stability of eclogite relative to amphibolite and blueschist. Whilst Smith validly criticizes the much favoured Groups A, B and C eclogite classification scheme of Coleman *et al.*, his proposed alternative classification scheme is scarcely adhered to in this book and certainly does not adequately define the geological environment for the formation of most eclogites.

Overall this book falls well short of presenting a balanced and comprehensive account of 'Eclogites and Eclogite Facies Rocks'. However, this reviewer must confess to being not unbiased in reaching this conclusion having just completed the editing of a separate review text on such rocks.

D. A. CARSWELL

Latter, J. H., ed. *Volcanic Hazards: Assessment and Monitoring*. Berlin, Heidelberg and New York (Springer-Verlag), 1988. viii + 625 pp., 284 figs. Price DM 178.00.

During the last decade or so, there has developed within the volcanological community a heightened awareness of the social implications associated with volcanic studies. The need for this awareness was probably first highlighted by the eruption of Soufriere in Guadeloupe during 1976 when controversies between scientists were utilized by the media in a way that did not enhance scientific credibility, and lines of communication between scientists and governmental authorities were not clearly established. More extensive monitoring of active volcanoes was an urgent requirement, as well as the development of better predictive ability, procedures for the interface between volcanologists and civil defence authorities, and a code of conduct for scientists working on volcanoes. Considerable endeavours on all these fronts have been and are being made.

It is thus appropriate that the first volume in the IAVCEI Proceedings in Volcanology should be devoted to the assessment and monitoring of volcanic hazards. This volume is the outcome of a symposium held at the International Volcanological Congress in New Zealand during February 1986. The book contains thirty-five of the papers that were presented orally or as posters as part of the Symposium, including two that were given in a symposium on pyroclastic flow deposits.

The Editor has divided the book into two parts, the first covering hazard assessment and the second monitoring. Within each of these sections

he has attempted to order the papers logically, keeping works on particular regions or volcanoes grouped together. Inevitably with a book of this type, the contributions are variable in quality and interest. The topics covered are wide-ranging and the geographical coverage of volcanoes good; but, as the editor regrets in his preface, there are no sections dealing with volcanoes of Africa, the Atlantic Islands (except Iceland), Hawaii, Central America (except Mexico), or South America. [All the papers have been abstracted in *Mineralogical Abstracts* M. A. 90M/1048-1082].

Although this publication is presented as typed camera-ready copy, there is at least uniformity, all the papers being typed to a standard style. There is also a measure of uniformity in the written English, presumably as a result of a heavy editorial pen. The result is a good record of the presentations given at this symposium. As such it will be a useful reference in Earth Science libraries.

Having said that, there is a feeling that something is missing. An important aspect of any meeting such as the one represented here is the cross-fertilization of ideas. The book could have been so much better if there had been one or two stimulating chapters by authors invited to present ideas developed by discussion as the conference progressed. The Editor's Preface goes some way towards this especially in pointing out that only a few Quaternary volcanoes are known well enough for estimates to be made of mean intervals between eruptions of a given magnitude. Thus emphasis is often given to those volcanoes known to have had large eruptions in the recent past, whereas real danger may be present at centres that have been long dormant. He argues that a future thrust of research should be detailed chronological studies of potentially destructive volcanoes including those currently dormant. While this is not entirely a new idea it is one that is certainly worthy of emphasis.

Perhaps for future volumes in this series the publishers will consider a format that will record these symposia not just as a collection of papers presented, but adding contributions that reflect the intellectually stimulating outcome of a group of scientists coming together to discuss their subject.

J. E. GUEST

Young, T. P. and Taylor, W. E. G. (Editors) *Phanerozoic Ironstones*. (Geological Society: Special Publication No. 46), 1989. xxv + 251 pp. Price £66.00.

An International Symposium on Phanerozoic