rather more esoteric. Two of these involve the presentation and discussion of experimental data on cordierite-bearing systems (Aranovich and Podlesskii; Perchuk and Lavrent'eva) and a third (Eugster and Ilton) the extrapolation of experimental solubility data to a consideration of Mg–Fe fractionation between various minerals and the chloride-rich aqueous fluids considered important in many metamorphic environments. Saxena discusses possible relationships between exsolution and Fe–Mg order–disorder in pyroxenes and finally Powell presents a formalism for expressing activity–composition relationships constructed so as to more closely approach the physical reality of atomic distribution in silicate mineral structures than the simple mixing models usually employed.

D. A. CARSWELL

Martin, H. and Eder, F. W. (eds.) *Intracontinental Fold Belts: Case Studies in the Variscan Belt of Europe and the Damara Belt of Namibia.* Berlin, Heidelberg, New York, and Tokyo (Springer-Verlag), 1983, xiii + 945 pp., 300 figs., 24 plates. Price US$47.70 approx. (DM 120.00).

This major reference work presents the results of a 12-year research programme on the Variscan and Damara fold belts undertaken at Gottingen University and completed in 1980. This work was funded by the Deutsche Forschungsgemeinschaft as a special collaborative programme known as the Sonderforschungsbereich (SFB) 48-Gottingen. The work consists of 41 contributions by various authors and give equal weight to each fold belt, there being 19 papers on the Variscan and 21 on the Damara, together with a generalized comparison.

Although the book assigns equal weight to each fold belt, the treatment of each is different, presumably indicating the differing starting points for the two aspects of the programme. Papers concerned with the Variscan Belt tend to concentrate on specific problems of sedimentary history or stratigraphy, whereas geochronological studies and discussions of metamorphic history dominate the contributions on the Damara Belt. A further difference arises in so far as the treatment of the Variscan is restricted to its outcrop in Central Europe whereas the entire Damara Belt appears to be considered. Because of these points and in the absence of a good review paper on the Variscan (there is an excellent review of the Damara), the book does not provide a balanced comparison between these two fold belts, although the text opens with a very generalized comparison by way of an introduction. In this respect I found the book rather disappointing, leaving the feeling that, although I knew substantially more in detail about these fold belts, I did not understand their overall structure or their geotectonic significance to any greater degree than when I started reading it. The book is then a set of research contributions, rather than a definitive study, and does not live up to its rather general title.

This substantial text is produced at comparatively low cost, considering its rather specialist appeal, but this results in a small print size and rather numerous typographical errors. The diagrams and tables are of uniform reasonable quality, although some of the diagrams would benefit by being enlarged; the plates are generally excellent.

Intracontinental Fold Belts will be a standard reference volume amongst those specialists studying aspects of the Variscan and Damara belts, but will be of only limited interest to other earth scientists although individual papers contained in the volume may become more widely cited.

MERVYN E. JONES

Moseley, F. *The Volcanic Rocks of the Lake District a Geological Guide to the Central Fells.* London (Macmillan), 1983, vi + 111 pp., 64 figs., 58 photos., 17 maps. Price £4·95.

This text provides a simple introduction to the geology of the central fells of the English Lake District, dealing with the Eycott and Borrowdale Volcanics, and describing field excursions which also venture on to the underlying Skiddaw Slates and the overlying Coniston Limestone Group and Silurian sediments. I found reading both the simple introductory chapters and the field excursion itineraries enjoyable and informative and the text generally portrays the author's obvious enthusiasm for this field area, and his great practical experience of these rocks.

This book is aimed at a wide readership—the informed amateur, school and university students, and experienced geologists. To an extent it is successful, and although I would not recommend it to readers with no previous knowledge of the subject, anyone with a limited understanding of geological terminology will be able to understand the introductory chapters and following from this the field itineraries. At the other extreme, the wealth of detail given in the field itineraries will greatly aid the expert planning a field excursion to the area. I have no doubt that this book will become a favourite with undergraduates visiting the Lake District, and I suspect that the excellent maps, cross-sections and annotated photographs will assist undergraduate map makers, to perhaps too great an extent.

The book is well produced, with excellent plates and figures, but the text tends in places to refer to

great strings of figures without adequate explanation for the less informed reader and is occasionally inaccurate in its quotation of figure numbers. Generally, however, this is a well-produced book which will be read by many amateur and professional geologists.

MERVYN E. JONES

Parker, A., and Sellwood, B. W., eds. *Sediment Diagenesis.* Amsterdam and London (D. Reidel Publishing Co.), 1983, 417 pp. Price £35·50.

This book contains the majority of the principal contributions given at the NATO Advanced Study Institute on Sediment Diagenesis held at Reading, July 12–25, 1981. Details and abstracts of the eight papers are given in MA 85M/1017–1024. The authors are well known and have published extensively on their subject areas, including a number of authoritative textbooks. The chapters do therefore provide both a summary and an up-date on what is already published, and the text is therefore extremely useful. Comprehensive treatment of a diverse subject such as diagenesis is, however, difficult to achieve, particularly as the subject is evolving rapidly, mainly because of the importance of diagenesis in all stages of hydrocarbon evolution. Subjects possibly not adequately covered in the text are organic diagenesis, early diagenesis from the standpoint of rate processes and applications of isotope geochemistry. This reflects a personal preference and is not a serious criticism. The book is produced from 'camera-ready' material and this does lead to some unevenness in the quality of the text-figures and plates.

D. A. SPEARS

Nawaz, R. *Moon, Asteroids, Comets, Meteorites and Tektites: the most studied but the least understood bodies of the solar system.* Belfast (Ulster Museum), 1984, viii + 52 pp., 18 figs. Price £1·00.

This booklet is designed to explain and further illustrate a museum display and thus concentrates on the geological and mineralogical rather than the astronomical aspects of the Moon, meteorites, and tektites. It includes a 10-page glossary and also gives the chemical classification of meteorites and a list of the abundance of the various types.

R. A. HOWIE

Gere, J. M., and Shah, H. C. *Terra Non Firma: Understanding and Preparing for Earthquakes.* Oxford and New York (W. H. Freeman & Co.), 1984, x + 193 pp., 88 figs. Price £11·95 (paper), £19·95 (board).

This fascinating and well-illustrated book deals with the need to understand and prepare for earthquakes. Most of the examples are taken from earthquakes in the USA and Japan. Both authors are civil engineers with many years of practical experience in coping with the problems caused by earthquakes, landslides, and tsunamis. Plate tectonics, intraplate earthquakes, and earthquake prediction are each discussed.

R. A. HOWIE