bearing granites are also described in a paper by Shimura, Komatsu and Iiyama, who give the results of some high pressure melting and crystallisation experiments on these rocks. Other experimental phase equilibrium studies in a range of metaluminous to peraluminous compositions are reported in papers by Green and by Holtz, Johannes and Pichavant.

Several of the contributions are concerned with the relationship between magmas and resites. For example Ellis and Obata discuss the segregation of melt from migmatites on the basis of petrographic observations and phase equilibria, while Burnham presents geochemical arguments to support the restite unmixing hypothesis, i.e. the idea that granites represent mixtures of melt and restite. A paper by Zeck gives further details of the Hoyazo dacite, a volcanic rock with apparently restitic inclusions.

Stable and radiogenic isotope studies are described by many of the authors, but particularly interesting are several papers on the use of the SHRIMP ion microprobe at the Australian National University for U–Pb geochronology of zircons. The photomicrographs and isotopic data which accompany these papers reveal the complex history of zircon growth in granites, and the great potential of this technique for uncovering the history of their magmatic source regions. Another relatively new area of research is the study of oxidant state of granitic magmas, and the paper by Blevin and Chappell considers how oxidation state among other factors can influence the metallogenetic character of granites.

Altogether this is a most valuable collection of papers on recent granite research, and it is pleasing to see that unlike many symposium volumes the contributions are packed with detailed and often new information. The volume is very well produced and illustrated, although it is a pity that it has been priced beyond the reach of most researchers. Granite specialists will be indebted to Bruce Chappell for the organisation of the Second Hutton Symposium. The next meeting in the series will be held at the University of Maryland in 1995.

A. HALL

Floyd, P. A., Exley, C. S. and Styles, M. T. *Igneous rocks of South-West England.* London (Chapman and Hall), 1993. xii + 256 pp. Price £65.00

This volume is one of the Geological Conservation Review series, initiated by the Nature Conservancy Council in 1977, which will eventually document all the geologically important sites (SSSIs) in Great Britain. Like the other volumes in the series, it highlights the special interest of each site, describes its geology, reviews research on the site, and sums up its importance in simple terms for the non-specialist.

The first two chapters introduce the geology of the region, mentioning the structure and stratigraphy, reviewing the igneous activity and summarising the most important isotopic ages. The four main chapters describe localities illustrating the four principal igneous rock associations of the region: the Lizard ophiolite complex (10 sites); the pre-orogenic (spilitic) lavas, tuffs and intrusions (19 sites); the Cornubian granite batholith (19 sites); and the post-orogenic Exeter Volcanic Series of shoshonitic character (5 sites). Some of the localities are among the best of their kind in the British Isles, e.g. the coastal section through the roof of the Tregonning granite; and others are of international significance, e.g. the tourmaline and topaz-rich rocks associated with the St. Austell granite.

The authors have done an excellent job of describing the sites and explaining their significance. They provide an up-to-date bibliography for the specialist reader and a glossary for the non-specialist. The volume is beautifully produced and very well illustrated, although some of the photographs are rather poorly reproduced. This review will be of lasting value, and many geologists who know the region will want to own a copy; unfortunately it is priced beyond the reach of nearly all its potential readers.

A. HALL

Emeleus, C. H. and Gyopari, M. C. *British Tertiary Igneous Province.* London (Chapman and Hall), 1992. xii + 259 pp. Price £65.00 hardback.

This A4-sized book contains 95 figures (including photographs) and 12 Tables and is published in association with the joint Nature Conservation Committee as part of the *Geological Conservation Review Series*. The production is handsome with good art-quality paper so that photographs produce well, and is printed in a clear double column that reads easily. I found very few typographical errors indeed and the volume is both well written and well edited.

An introductory statement at the beginning of the volume states that the Geological Conservation Review was initiated by the Nature Conservancy Council to publish accounts of the rich geological heritage of the UK, particularly regarding the key earth science sites, which either are, or are being considered for notification as,