

mineral species, and should not be assigned formulae as though they were. And in Figs. 5.57 and 5.58 contraction of the tetrahedral net by tetrahedral rotation leads to higher density, not lower density. A minor irritation is provided by the use of the word acentric instead of non-centrosymmetric as the opposite of centrosymmetric (centric and acentric having special meanings in X-ray crystallography). But these are trivial complaints about a book of this quality, which is undoubtedly excellent value.

E.J.W. WHITTAKER

O'Hanley, D.S. *Serpentinites: Records of Tectonic and Petrological History*, New York and Oxford (Oxford University Press), 1996, xiv + 277 pp. Price £70.00 hardback. ISBN 0-19-508254-0.

There are probably very few geologists who have visited SW England and not stopped for a day or so to examine the serpentinitized peridotite of the Lizard Complex. Although the serpentinite provides a rewarding study of serpentine minerals and the processes involved, it also has a part to play in the local tectonic problems of the region. It is these twin themes – the intrinsic value of understanding the serpentization process, coupled with the awareness of serpentinites to help solve geologic and tectonic problems – that provide the thrust of this book. In this respect David O'Hanley has certainly succeeded, although the section on tectonic settings is more limited, perhaps reflecting neglect in this area even allowing for the association of serpentinites with ancient crust (ophiolites).

Although this monograph is aimed mainly at serpentinite specialists, many of the various chapters can be consulted individually and provide useful references over a wide range of topics. Much of the first part is concerned with mineralogy and petrography, and the nature of hydration/serpentinitization processes, all well illustrated by both field photographs and annotated photomicrographs (reproduction here is good to excellent). This is followed by separate chapters on associated rocks formed by metasomatic processes (rodingites, etc.) and serpentine-related mineralization. One of the most comprehensive chapters deals with serpentinitization 'events' via mineral paragenesis and field

evidence rather than experimental data, and discusses the nature of fluids involved in both space and time. More integration with chemical and experimental systems might have been appropriate here, although this is counter-balanced by good field case studies. A chapter on geochemistry (with a tail-piece on geophysical properties) is largely concerned with stable isotope systematics (mainly O, H and C), fractionation factors related to temperature estimates, and fluid inclusions. Bulk geochemistry is somewhat limited to REE and a few other elements; unfortunately few data are tabulated here for comparative purposes. Phase equilibria ($T-X_{CO_2}$; $P-T$; activities) relating to serpentine minerals and assemblages (including sulphide systems at low T) are scattered throughout a number of chapters.

There is little doubt that this book is a well documented coverage of serpentinites, their composition, origin and geological importance, written in a concise, but readable style. There are some 700 references, of which about a third are post-1987, and thus provide coverage of most modern work in this area. There are very few typographical errors and differences of opinion are dealt with fairly, although the author makes his point of view clear in a final summary chapter. I would strongly recommend this book to both new workers and specialists in the light of its comprehensive cover of serpentinites, although the price might make some think twice.

P.A. FLOYD

Dimes, F.G. and Mitchell, M. *The Building Some Heritage of Leeds*, Leeds (Leeds Philosophical and Literary Society), 1996, xii + 112 pp. Price £9.00.

The geology and topography of this part of Yorkshire are outlined in an early chapter. This is followed by a discussion on the nature and use of stone for building, before the reader is taken on a series of four walks around the city. There are 16 colour photographs, as well as numerous black-and-white photographs, maps and sketches. The book concludes with a brief rock classification, a useful glossary and indexes of buildings and building stones, as well as a general index.

R.A. HOWIE