topaz, zircon, etc. These were produced not from the pure oxides of the conventional logic but from mixing such ingredients as, for pyrope, $Mg(NO_3)_2$, $Al(OH)_3$ and SiC and reacting them in a slightly open capsule allowing the volatile components to escape, leaving tiny but perfect crystals of garnet. The results were not published initially, but after the synthesis of a new dense form of crystalline silica, now coesite, a short note [M.A. 12-409] appeared on this together with a remark that 'the synthesis of several naturally occurring minerals' was to be reported in a subsequent paper. This led to a meeting in December 1953, at the Norton Co., at which Coes demonstrated his methods and results to Messrs. Birch, Boyd, Hurlbut, MacDonald, Robertson, Roy, Thompson, Van Valkenburg and Yoder. Coes never did succeed in making diamonds, but these nine scientists left in amazement and on return to their respective laboratories developed research techniques which continue to be of lasting importance to the earth sciences.

In further chapters, the six-year legal battle between De Beers and General Electric in which the former challenged the originality and accuracy of the description of the latter's discovery, the production of diamonds via explosive processes, and their successful synthesis from chemical vapour deposition are described. A final chapter details the invention and development of the diamond anvil cell, with an interesting history of Van Valkenburg and Weir having an abundant supply of natural gem diamonds confiscated by the U.S. Customs and offered to scientists at the National Bureau of Standards.

This is an entirely readable book, full of fascinating often first-hand accounts of the trials and tribulations of high-pressure research workers in academic, commercial and government laboratories. The price should encourage a wide readership. R. A. HOWIE

Selwood, E. B, Durrance, E. M. and Bristow, C. M. (Eds.) *The Geology of Cornwall and the Isles of Scilly*. Exeter (Exeter University Press), 1998. xxii + 298 pp. Price £15.99 (hardback £42.50). ISBN 0-85989-432-0.

The development of the important metal mining industry in the English county of Cornwall towards the end of the 18th Century was associated with some of the first, sustained geological studies in Britain. Early work on the geology of the county by the national survey and the formation in 1814 of a regional geological society were important events which accelerated geological interest in the region. During the subsequent two hundred years the amount of published geological research on the region has been enormous, and not just on the subject of the mineralization, but into all aspects of the geology. However, the voluminous literature and the constant evolution of ideas on the area's geology have combined to make it difficult for newcomers to the region to obtain a concise and up-to-date insight into the geology of Cornwall.

This book aims to fill this gap by summarizing the results of these studies and presenting the current views on the geology and geological evolution of the county of Cornwall. In sixteen chapters, twenty authors present fairly comprehensive and authoritative accounts of the geology of this county. After an 'Introduction' and a chapter outlining the plate tectonic setting of the region ('Pre-Devonian tectonic framework') there are three chapters dealing with the geological environment and evolution during the Palaeozoic Era ('The Lizard Complex, Devonian, Carboniferous'). The Upper Palaeozoic history of the area then culminated in widespread deformation and metamorphism ('Variscan structural and regional metamorphism') and associated igneous activity ('Granites and associated igneous activity'). Associated with the granites there was widespread mineralization and hydrothermal alteration and these important aspects are covered in several chapters ('Mineralization', 'Modelling the mineralization framework', 'China Clay', 'History of metalliferous mining', and 'The contemporary extractive industry'). More recent geology is described in chapters on 'Offshore and Mesozoic Geology, The Tertiary', and 'The Quaternary'. A final chapter briefly covers some aspects of 'Environmental Geology'.

The book is not directed solely at the academic community and will also be of interest to the informed amateur geologist. It contains abundant diagrams, map references for relevant localities, and a listing of geological and geomorphological conservation sites. Obviously the boundary to the area under consideration is essentially non-geological (the river Tamar) so there is a certain lack of completeness to some of the discussions (it is a shame that some aspects of the geology of the adjoining county have been excluded). There are 22 pages of references, but as these represent

only a small fraction of the geological literature on the area, any serious researcher would soon need to look elsewhere for further information.

Altogether this is a most informative and readable book, and the paperback version is very reasonably priced. It is recommended for anyone who wishes to gain an informed, up-to-date introduction to the geology of this geologically complex, yet historically important, area.

D. H. M. ALDERTON

Mandarino, J. A. *Fleischer's Glossary of Mineral Species 1999*. Tuscon, Arizona (Mineralogical Record). ix + 225 pp. Price $18.00 plus postage.

This is the eighth edition of the well-known glossary of mineral species, with the title modified as a tribute to Michael Fleischer (1908–98) who produced the first edition in 1971. Compared with the seventh edition of 1995 (280 pages: reviewed in the *Mineralogical Magazine*, 1996, **60**, 391), the new version is slightly slimmer, due to the restriction of the main glossary to valid species only: the previous edition contained a sprinkling of varietal names, but by no means a comprehensive compilation. A large number of minerals in the 1995 edition contained a statement of their colour; this category has now been eliminated as being the 'least reliable property of minerals in terms of diagnostic value'.

The book also includes the new species information derived from the recent IMA reports on the amphibole, zeolite and mica groups.

The book remains an indispensable aid to mineralogists and, with the price unaltered from the previous edition, it is very good value for money.

A. M. CLARK