on these widespread aluminosilicates which should be available to all mineralogists and geochemists.

R. A. HOWIE

Gribble, C. D., and Hall, A. J. *A Practical Introduction to Optical Mineralogy*. London (George Allen and Unwin), 1985. xiv + 249 pp., 158 figs. Price: Paper £8·95, Hardback £18.

This introductory student text is intended to be a first stepping-stone to the study of optical mineralogy. After a brief chapter on the study of minerals under the microscope, mineral descriptions are given for both silicates and non-silicates. These chapters are followed by sections on transmitted-light crystallography and on reflected-light theory.

The mineral descriptions for the silicates are arranged alphabetically and are clearly presented with orientation diagrams (where appropriate) and determinative diagrams for the more important solid-solution series. A short paragraph is given on the occurrence of each mineral, with mention of some commonly associated minerals. The non-silicates follow, including polished-section information, using reflected light. In the chapter on transmitted light, the formation of interference figures is explained and numerous diagrams are presented to assist in the determination of optic signs. The coverage of reflected light theory is unique at this level of text and includes a discussion on reflectance and on quantitative colour values.

This book is already proving deservedly popular with students and, in paperback, is good value. By far the worst aspect is the quite awful mud-coloured Michel-Levy chart on the back cover.

R. A. HOWIE

Können, G. P. *Polarized Light in Nature*. Cambridge, London, New York (Cambridge University Press), 1985. x + 172 pp., 73 figs., 87 colour plates. Price: £19·50.

This is a translation of the original Dutch text (1980). Essentially, it is a very gentle stroll through a catalogue of polarization phenomena. Technical detail is kept to a minimum and all the effects described can be seen through a polarizing filter (one is provided with the book).

There is a well-illustrated discussion of numerous atmospheric and astronomical examples, but the formal treatment of mineral optics amounts to a mere nine pages. Minerals are primarily regarded as another source of beautiful colour patterns, and this is really at the thick rather than the thin section level. Calcite is the representative uniaxial crystal, aragonite and brookite the biaxial crystals, whilst quartz is shown as an optically active crystal. Pleochroism is mentioned but the main claim to fame for epidote is for the demonstration of Brewster's brush. There are occasional references to minerals elsewhere in the book, and on p. 30 there is the suggestion that the Vikings may have used cordierite as a polarizing filter to aid navigation. Although the text is aimed primarily at the non-specialist audience there are over sixty references and it would have been nice to see at least one modern citation to optical mineralogy to improve the balance.

R. FREER

Hahn, T., ed. *International Tables for Crystallography* (Brief Teaching Edition of Volume A: Space-Group Symmetry). Dordrecht, Boston, and Lancaster (D. Reidel Publishing Co.), 1985. viii + 119 pp., 87 figs. Price £7·60.

This publication is unusual in being a condensed version of a major work of reference produced specifically for teaching purposes. Twenty-four of the 230 space-groups are presented in the same elegant fashion as in the complete edition. These are preceded by sections dealing in turn with 1. an explanation of the terms and symbols used; 2. a guide to the use of the tables; 3. space-group determination and diffraction symbols; 4. transformations in crystallography by the use of vectors and matrices.

The aims of the editor and contributors, to provide an inexpensive aid for the researcher and students, which can be used both as a classroom text and as a laboratory handbook, are well achieved.

J. ZUSSMAN

Beck, R. J. *New Zealand Jade*. Wellington (A. H. & A. W. Reed), 1984. vi + 174 pp., 17 figs., 83 photos., 18 colour plates, 8 maps. Price $(NZ)24.95.

This fascinating and readable book is concerned with all aspects of New Zealand jade. The author is Director of the Southland Museum, Invercargill (South Island) and is a jade lover, caver and explorer.

Following a brief introduction there is a short chapter on terminology which includes descriptions of the varieties of nephrite recognized by the Maoris. A major part of the book (52 pages) is devoted to accounts of the various jade fields in the South Island. Their geology is clearly explained and is supplemented by descriptions of the Maori and European discovery and exploitation of the

deposits. A short chapter on the local bowenite follows. Maori history and legends concerned with jade are outlined and this is succeeded by a most interesting chapter on Maori lapidary methods. The stages in the manufacture of the Maori implements themselves are described next. The history and methods of European exploitation is followed by a chapter on lapidary hints.

Four appendices describe the origin of nephrite, the physical properties of New Zealand nephrite, the jade substitutes and world sources of jade. The glossary, bibliography, and index are all extensive and admirably complement the excellent text. This is a very well illustrated paperback which promises to become a 'mini-classic'.

E. A. JOBBINS