

to the problems of disorder, incommensurate structures, transformations, quasi-crystals and computer-intensive crystal structure analysis of proteins, on a secure basis.

A. L. MACKAY

Arem, J. E. *Color encyclopedia of Gemstones* (2nd edition) New York (Van Nostrand Reinhold), 1987. vii + 248 pp. Price £39.95.

The updated edition of this book is as attractive as the first (1977) and with about 30 new species of gemstone added, as well as some new varieties of already established ones, the text is again of considerable importance to the gemmologist.

As before, the gem species are arranged alphabetically, though attention has been paid to the grouping of minerals in families where appropriate. This and other mineralogical matters are lucidly discussed in the preceding chapters, which also include useful explanations of colour measurement and specification. Details of the alteration of colour are specifically omitted, however. I would recommend the early portions of the book as an excellent study of the geology and mineralogy of gemstones.

In the descriptive portion of the book, entries take the same form as before with all important features provided, as well as notes on the commercial significance of the stones. Tables give the properties of some major gemstones which occur in a wide variety of environments, and this makes it easier for the reader to find the details he wants at a glance. Particularly welcome to this reviewer is the continuation of this section into the field of man-made products—the first time that they have received just this kind of well-deserved recognition. They are also illustrated in colour.

It is, of course, the colour pictures which were so great a feature of the previous edition and they are even more beautiful this time round—and there are more of them. All that expert positioning and lighting can do has been done and the specimens thus look their best. It is idle to criticize this as more have, as gemstones are meant to look beautiful and

these superb pictures are completely successful. I recommend readers to look first at the coloured pictures of the manmade stones (bismuth germanium oxide and cadmium sulphide, for example) to see what a manmade product can look like.

There are several lists and tables as well as a bibliography and index. For such a book the price is amazingly reasonable and it will lift the spirit as the stones themselves do.

M. O'DONOGHUE

Woodward, C. and Harding, R. *Gemstones*. London (British Museum [Natural History]), 1987. 60 pp., 150 colour photos. Price £4.95.

This beautifully produced and illustrated booklet features many of the cut and rough stones displayed in the Gemstones Exhibition at the Geological Museum and also some of the fine crystals and cut gems on view in the Mineral Gallery of the British Museum (Natural History), as well as famous gems from other world collections. There is a useful and authoritative text and in addition to the photographs there are several colour diagrams.

R.A.H.

Hoffman, S. J. *Writing Geochemical Reports: Guidelines for Surficial Geochemical Surveys*. Rexdale, Ontario (Assoc. Exploration Geochemists: Special Vol. No. 12), 1986. 29 pp. Price \$ (US) 5.00 or \$ (Cdn) 7.00 including postage (from Assoc. Explor. Geochemists, PO Box 523, Rexdale, Ontario M9W 5L4, Canada).

Too often the report is treated as the final chore needed to complete a project. These guidelines indicate the type of information needed so that others can make an independent and intelligent interpretation of the same geochemical data. This document can also be used before fieldwork begins, to ensure collection of all pertinent facts required for a geochemical report.

R.A.H.