

QUARTZ

By Michael O'Donoghue, 110 pp., illus., publ. by Butterworths, London, 1987. US\$29.95*

Quartz, in both its single-crystal and cryptocrystalline forms, has been an important gem material for centuries. It is also one of the most common gem materials, because of the abundance of the elements silicon and oxygen (the major components of quartz) in the earth's crust. To condense the gemological significance of quartz into one small volume of 110 pages is, to say the least, a formidable task. However, O'Donoghue has managed successfully to provide the information concisely and in a well-organized fashion.

First, he discusses the igneous, hydrothermal, and metamorphic origins of quartz. He follows with a detailed description of the mineral, including chemistry, crystal structure, and inclusions. He then reviews causes of color in quartz and various methods of synthesis. Next, the significant gemological properties are presented, followed by three chapters on occurrence, and concluding with chapters on testing and on the lapidary fashioning and historical uses of gem-quality quartz.

Perhaps the only weakness in this book is the lack of adequate descriptions of the various occurrences, and the omission of some localities altogether. For example, with the exception of Libya, no mention is made of any other African sources; both the Soviet Union and China are neglected.

The book does contain a four-page spread of attractive color plates, primarily of chalcedony and the internal characteristics of single-crystal quartz gems such as amethyst. A useful bibliography, a glossary of terms, and an index of unusual names for various quartz varieties are also provided.

Quartz is enjoyable, accurate, easy to read, and within the budget range of most gemstone enthusiasts. It is a good introduction to this broad family of gems, and makes an excellent companion monograph to the more technical third volume of Dana's *System of Mineralogy*. This

BOOK REVIEWS

Elise B. Misiorowski, Editor

book is recommended to all gemologists and jewelers who have an interest in quartz.

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LE MONDE MINERAL VU PAR LES TIMBRES The World of Minerals through Postage Stamps

By Jean-Michel Autissier, photographs by Nelly Bariand, 128 pp., publ. by Atelier JMA, Saint-Amand-Montrond, France, 1987. 120 FF*

This beautifully illustrated volume, written in both French and English, represents a thorough documentation of gems and minerals that are depicted on postage stamps. This work was inspired by the publication of the first French mineral stamps in September 1986 and the mineral-related stamp exhibit that followed at the Sorbonne in Paris. The first of its kind, this book is an attempt to provide a complete international catalogue of stamps featuring various forms of minerals, from polished gems to ore specimens.

One hundred and five mineral species are covered, and 425 stamps are described with full philatelic references. After a short introduction to the mineral world, the presentation follows a classification by mineral species: gems and ornamental stones first, followed by other minerals classified according to the type of deposit in which they are found. The text is illustrated with fine color photographs of the stamps taken by renowned gem and mineral photographer Nelly Bariand. In total, 283 stamps are illustrated.

The overall quality of the paper, printing, and color reproduction is

excellent. The bilingual text, together with philatelic references to French, German, and American classifications, gives this work a broad international audience.

This little book can easily be used in sales to illustrate the geographic origin of a stone or the official recognition of an unusual species. It is an intriguing and fascinating introduction to the important role that gems and minerals play in everyday life.

EMMANUEL FRITSCH
Research Scientist, GIA

A GUIDE TO FOSSICKING IN THE NORTHERN TERRITORY 2nd Edition

Revised and updated by Dick Thompson, 74 pp., illus., publ. by the Northern Territory Department of Mines and Energy, Darwin, Northern Territory, Australia, 1986. A\$9.00*

Twice the size of the state of Texas, the Northern Territory of Australia is a vast, sparsely settled region of legendary natural beauty in which a great variety of interesting mineral deposits, some of which produce gem materials, have been found. For the amateur field collector, or "fossicker," the Northern Territory represents a most appealing destination, offering an enormous field for exploration along with the ever-present prospect of new discoveries. This book is an authoritative guide to many of the region's localities that are accessible to collectors. It contains superb, colorful maps and a wealth of other useful information such as practical facts on mineral identification, detailed directions for finding locations, tips on traveling, names of local gem and mineral clubs, and a bibliography of suggested references. This book is well illustrated, with many color photographs of gems, mineral specimens, and localities. Its lively, attractive format could well serve as a model

*This book is available for purchase at the GIA Bookstore, 1660 Stewart Street, Santa Monica, CA 90404. Telephone: (800) 421-7250, ext. 282.

for those contemplating the preparation of such a guide for other regions.

Most of us can only dream about visiting some of the remote locations described in this book. Yet locality guides like this can act as useful references on gem and mineral occurrences for the curator and private collector. They can also suggest deposits and areas for further exploration and possible commercial development. Thus, they are valuable additions to any library regardless of whether one is ever fortunate enough to visit the location.

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OTHER BOOKS RECEIVED IN 1987

The Collector/Investor Handbook of Gems, by John L. Ramsey and Laura J. Ramsey, 300 pp., illus., Boa Vista Press, San Diego, CA, 1985, US\$16.95.* This is a very earnest endeavor on the part of two well-respected members of the trade to address a subject that most gemologists try to avoid, that of gemstone investing. The book is divided into three sections. The first, "Gems and the Economy," takes a long look at inflation and deflation and the performance of gems in this unpredictable economic climate. The second section discusses the more practical aspects of buying and selling gems: appraisals, treatments of and inclusions in gemstones, where to go for gemological instruction, and the types of equipment used for gem identification and evaluation. The third section discusses another current gemological quagmire: the description and evaluation of color in gems. This section includes a "Color Guide and Gemological Reference" to 24 popular "investment" stones, with full-color examples of each stone provided together with their properties, lo-

calities, and comments by the authors regarding positive and negative characteristics. The book closes with tables of gemstones listed three ways: alphabetically, by refractive index, and by specific gravity. Also included are a glossary, a section on suggested books and periodicals, and an index. Much useful information is compiled in this deliberately "pocket-sized" handbook, augmented by many bold color photographs of the gems.

EBM

Minerals of Mexico, by William D. Panczner, 459 pp., publ. by Van Nostrand Reinhold Co., New York, 1987, US\$44.95.* This book represents a tremendous amount of painstaking research, both in the field and in libraries, that has culminated in a current catalogue of minerals and their locations throughout Mexico. It begins with a historical overview of the important mining districts, followed by a chronology of discoveries and developments related to mining in Mexico and a 20-page bibliography that is itself a noteworthy accomplishment. The bulk of the text is the catalogue, which is arranged alphabetically by mineral, and by state and county within each mineral entry. Although the emphasis is on minerals in general, rather than on gems in particular, any gemologist interested in Mexican gem materials will find this a useful addition to their library.

EBM

The Dow Jones-Irwin Guide to Fine Gems and Jewelry, by David Marcum, 213 pp., illus., publ. by Dow Jones-Irwin, Homewood, IL, 1986, US\$25.00.* This book provides helpful information for any consumer interested in buying gems. Topics covered include the gems themselves, how to read lab reports, types of appraisals, and a variety of tips and insights into

the jewelry and gem trade based on the author's experience. Although the term *gem investment* makes most gemologists cringe, it continues to be a concern with the public and is addressed here as well. For a book about gems and jewelry, it is sparsely illustrated, with only eight color pages showing the principal varieties of colored stones.

EBM

Guide des Pierres de Rêve (Guide to Dream Stones), in French, by Anne de Tugny, 239 pp., illus., publ. by Editions Flammarion, Paris, 1987, 130 FF. This small-format, well-illustrated book is an introduction to the science and magic of gemstones for the enlightened amateur. The first and major part of the book is a simple dictionary of gemstones. Each stone is described in terms of color, clarity, internal characteristics, history, cut, care, sources, and possible imitations. The remaining parts are devoted to synthetics, practical tips for buyers, and, finally, a short section on lore. Altogether, this is an attractive and handy little book that can be used in sales to show the customer "a little bit more" about a stone, without delving into the technicalities of refractive index and specific gravity.

EMMANUEL FRITSCH

Editor's Note: In response to reader demand, the "Gemological Guidelines for Gemstone Durability in Jewelry" chart that appeared in the Summer 1987 issue of Gems & Gemology is being reissued in a laminated version suitable for display. The chart can be purchased for US\$9.95, plus postage and handling, from the GIA Bookstore (1660 Stewart St., Santa Monica, CA 90404; 800-421-7250, x282). Discounts are available to members of the GIA Alumni Association and for orders of 10 or more.