## **BOOK REVIEW**

GEMS: THEIR SOURCES, DESCRIPTIONS, AND IDENTI-FICATION, sixth ed. Edited by Michael O'Donoghue (2006) Elsevier, Great Britain, 873 pp. \$135 hardbound.

This massive compilation undertaken by editor Michael O'Donoghue is an encyclopedic volume on natural and manmade gems. The book consists of the prefaces of all six editions, thirty-one chapters, four appendices, sixty color plates, and a series of identification tables (17). The editor (in the preface to this latest edition) states that this book is not intended to be a bench manual, but rather "an exhaustive study of those substances both organic and inorganic, natural and man-made, which have at some time been used as ornament." From my viewpoint, being neither a gemologist nor a jeweler, the book would seem to be right at home on a jeweler's library shelf and a reasonable addition to a gemologist's array of resources.

The prefaces to the various editions are useful, in that they give the reader a feel for how the book has morphed over time. This edition omits various topics (discredited mineral names, derivation of gem names, mineral locations that don't produce face table material, etc.) but provides references on these subjects. This is very useful to those interested in the omitted subjects.

Part I is the "geologic" portion of the book, covering geologic sources of gems (Chapter 1) and crystalline gem materials [read crystallography] (Chapter 2). Both chapters give adequate coverage of the topics and are entertaining, however the lack of references is troubling. The first chapter presents a list of "further reading" articles and names of gemological journals. The "further reading" list is not directly tied to the context of the chapter and the "journals list" provides no publishers' addresses for subscription inquiries. Even more troubling in chapter 1 are figure captions that don't match the photographs (e.g., Fig. 1.7) or captions that refer to colors when the photograph is in black and white. Chapter 2 provides no references at all in the text. If these are oversights by the authors, the editor should have requested the information and made corrections.

Part II focuses on the gemstones themselves. Chapters 3 through 29 give descriptions of various natural (organic and inorganic) and man-made materials. Most of these chapters are extremely informative and draw out details that I had not previously encountered. I found the chapters on diamonds, corundum, garnet group, "less common species," fashioning of gemstones,

and value-enhanced gemstones, to be both entertaining and rich in detail. However, the treatment of various materials is uneven. The review of pearls, which devotes 81 pages to the subject, is the longest chapter. The two chapters on diamond combined have only approximately half the detail (47 pages) of that on pearls. The whole garnet group has 42 pages of information for their description, which short-changes this complex mineral group. Whatever the rationale is for the level of detail devoted to the various gems (popularity, price, mineralogic complexity, potential for deception by simulation), it escapes this reviewer.

The one minor annoying problem of Part I also occurs in Part II. Captions to figures do not always match the photographs and in some cases refer to specific colors when in fact the photograph is in black and white (Figure 29.27). This has the effect of detracting from the overall quality of the book. Much more troubling to the reviewer is again the inconsistent manner in which the chapters deal with references (or lack thereof). Some chapters contain a reference section at the end of the chapter. In rare cases, such as Chapter 4, there are no citations at all in the text. Other chapters have no reference section and you are left to scour Appendix D (in which the references are not listed solely alphabetically, but are grouped by subject matter first). The editor addresses the issue in the preface with the following statements. "I have cited in the text as many as possible of the papers from which information has been taken instead of building up a large block in a single place. I have found that this arrangement is preferable." I would have to disagree with the editor on this point.

The book was touted to be an exhaustive study of organic, inorganic, natural, and man-made substances that have at some time been used as ornament. Did the work live up to that high standard as espoused by the editor? Maybe. The book is voluminous, full of facts, and identification tables. The figure mislabeling and inconsistent reference format are distractions to the overall strength of the book. Is it worth the cost for what the reader gets? Let's put it in the context of how the jewelry industry places value on an item. If the book fills your needs and desires, then it is a good purchase.

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