

# BOOK REVIEWS

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### Photoatlas of Inclusions in Gemstones, Volume 3

By E. J. Gübelin and J. I. Koivula, 672 pp., illus., publ. by Opinio Publishers, Basel, Switzerland [<http://publications.microworldofgems.com>], 2008. US\$299.00

Gemology now has its gemstone inclusion bible: the three-volume *Photoatlas of Inclusions in Gemstones*. Culminating 35 years of groundbreaking research, Volume 3 is the final “gem” in Dr. Edward J. Gübelin and John I. Koivula’s monumental achievement. The three books together are intended to be the most comprehensive visual reference library of gemstone inclusions available. Like the previous two volumes, this one is abundantly illustrated with high-quality photomicrographs that brim with information, clarity, and beauty.

The book is divided into three major parts. The first includes a prefatory note by gemologist Edward Boehm, Dr. Gübelin’s grandson, and an introduction to using the *Photoatlas* library. The heart of the book is its second section, “Inclusions in Major Commercial Gems,” which deals with diamond, ruby, sapphire, and emerald. Each of these four chapters summarizes the different geologic processes that form or transport the gem, and the inclusions that characteristically result. As in Volume 2, the host material is clearly indicated in large type at the top of each page (e.g., “Inclusions in Sapphires”).

The section begins with diamond. Mineral inclusions in natural diamonds—peridotitic, eclogitic, and

deep-mantle—are discussed and well illustrated. The detailed examination of internal strain and “graining” patterns provides clues to distinguishing natural, treated, and synthetic diamonds. Inclusions in synthetic diamonds grown under high-pressure, high-temperature conditions are discussed and well illustrated (though not those grown by chemical vapor deposition), as are inclusions resulting from the full range of diamond treatments. The chapter concludes with identification of the main diamond substitutes: cubic zirconia and synthetic moissanite.

The ruby, sapphire, and emerald chapters cover inclusions in natural stones from all major localities. The authors often specify the particular mining region from which the inclusions originated and discuss the typical inclusions associated with the various modes of occurrence. Characteristic inclusions are organized according to genetic type. This is very valuable information, particularly for those who are interested in geographic origin. Also discussed are known treatments for each gem material and the inclusions that can identify them, as well as known synthesis methods and the characteristic inclusions they generate. Simulants such as assembled stones, synthetic overgrowths on natural stones, and glass are also discussed.

In the third section, “Inclusions in Rare and Unusual Gems,” 21 different gems—including axinite, benitoite, cordierite, danburite, ekanite, enstatite, fluorite, gypsum, pezzottaite, sapphirine, and taaffeite—are described and strikingly illustrated.

This section ends with a useful glossary and index.

Pioneered by the late Dr. Gübelin nearly 70 years ago, the study of internal features in gemstones, along with our current understanding of how and where certain minerals formed in the earth, enables gemologists to infer a great deal of information by simply viewing inclusions with magnification. By referring to the book’s exceptional photomicrographs, the experienced and diligent user of Volume 3 will frequently be able to ascertain the identity of individual inclusions and, in many cases, establish whether the stone is natural or synthetic. If the ruby, emerald, or sapphire is natural, the user may be able to determine the probable geographic origin and detect indications of treatment. The extensive further-reading list in each chapter provides easy access to additional information and photomicrographs. The scope of localities, treatments, and synthetics represented makes this book extraordinarily valuable to the gemologist, jeweler, and gem collector.

Admirers of beautiful art books will certainly appreciate all three of these volumes. The astute salesperson will also find occasions to use these photomicrographs to illustrate the unique beauty of inclusions in gems they are offering to a client.

With a total of 2,033 pages and more than 5,300 exquisite photomicrographs, the three-volume *Photoatlas* is the most remarkable achievement in the history of gemological literature. This reviewer cannot imagine that any serious gemologist would want to be without it, and

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this volume in particular is highly recommended—it is an essential reference for anyone involved in the identification, research, or appraisal of diamonds, rubies, sapphires, and emeralds.

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## Bulgari

By Amanda Triossi and Daniela Mascetti, 2nd ed. (revised and updated by Amanda Triossi), 320 pp., illus., publ. by Abbeville Press, New York [www.abbeville.com], 2007. US\$75.00

From their humble beginnings as traveling silversmiths in 19th-century Greece, the Bulgari family became a dynasty of internationally acclaimed fine jewelers. Dedication to excellence in design, materials, and fabrication vaulted the company to the iconic status it enjoys today. Patronized by royalty and the power elite, Bulgari is an Old World company that has remained on the cutting edge of fashion.

In 1996, Daniela Mascetti and Amanda Triossi coauthored the first edition of *Bulgari* (reviewed in the Winter 1998 *Gems & Gemology*, p. 303), in which they described the growth of this contemporary jewelry giant. Recently, Ms. Triossi gave the book an extensive revision. In this second edition, the visual design has been refined, the text has been updated, and more than 120 images have been added, including many press photos of the rich and famous wearing Bulgari jewelry.

In some chapters, there is little or no change from the first edition. Others—most notably “History of Bulgari,” “Evolution of the Bulgari Style,” and “Colour and Fabulous Gemstones”—have been updated to reflect changes in the family and their business structure, in new designs, and in the use of gemstones. The chapters on watches and perfumes

have also been expanded significantly, and a new chapter on accessories was added to show Bulgari’s further diversification during the 1990s into ties, scarves, leather goods, and eyeglasses.

Also useful would have been a timeline showing when the various jewelry styles and luxury items were introduced to the Bulgari product lines. An alphabetized glossary of the unique Bulgari styles—*tubogas*, *parentesi*, *pippoli*, *celtaura*, *gourmette*, and *B.zero1*, to name a few—would also have been very welcome. These are minor criticisms, however, when the book as a whole is considered. Overall, Ms. Triossi has done a superb job of revising the first edition to reflect the significant changes in the style and range of luxury products this remarkable company has undergone over the last decade, making this an important addition to the literature of jewelry history.

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## Guidebook to the Pegmatites of Western Australia

By Mark Ivan Jacobson, Mark Andrew Calderwood, and Benjamin Alexander Grguric, 356 pp., illus., publ. by Hesperian Press [www.hesperianpress.com], Victoria Park, Australia, 2007. US\$85.00

While the pegmatite districts of Western Australia and their mineral assemblages are known to many, information about them—particularly their locations—has been sketchy at best. Most were worked in the early 20th century, and some locales hadn’t been visited for decades. Because of the importance of these pegmatites to scientists and collectors, and a renewed interest in the industrial minerals they contain, the authors produced this field guidebook.

The bulk of this work is a listing of the many pegmatite districts and pegmatite-containing geologic areas of Western Australia. A major achievement of the book is the loca-

tion data, including detailed directions to the pegmatites and mines, as most of the previous literature offered only approximate locations. (The authors make it clear that their provision of directions to a given locality does not guarantee permission to visit. In some cases, they were unable to get permission themselves.)

*Guidebook* is a handsome hard-bound volume printed on high-quality paper. It contains 103 black-and-white photos and 76 maps. The introduction covers the history, mineralogy, classification, and mineral assemblages of these pegmatites. An immensely useful listing of the 120 minerals found in Western Australian pegmatites is provided. It includes not only the minerals but also their location(s), with some indicated as type localities. The following 10 chapters cover individual deposits within the major districts or geologic areas. Some of these locations are well known and have yielded significant commercial production (the Wodgina pegmatite field and the Greenbushes pegmatites, for instance). Others have provided mineral specimens for the collectors’ market (including emerald from the Poona pegmatite field and ferrocolumbite from the Giles columbite-beryl prospect in Spargoville). For each locality, be it a small prospect pit or a major operation, the authors provide an introduction and location data (some with GPS coordinates), as well as the history, geology, and mineralogy of the deposit. There are useful indexes for names, localities, and mineral species, plus an extensive reference list.

While the average gemologist might not have an urgent need for this book, pegmatologists and mineral collectors will find it invaluable. The fact that Western Australia’s pegmatites are not miarolitic (i.e., they do not have significant open pockets for freestanding crystals to form) has prevented them from achieving the kind of fame that the Pala District pegmatites of California enjoy. Nevertheless, collectible mineral specimens and some gems have been produced, and renewed interest will

likely lead to the discovery of more in the future.

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## OTHER BOOKS RECEIVED

**Crazy About Jewelry! The Expert Guide to Buying, Selling and Caring for Your Jewelry.** By Susan Eisen, 245 pp., illus., publ. by Full Circle International Publishing [www.crazyaboutjewelry.net], El Paso, TX, 2007. US\$16.95. This is the book you want your customers to read. Susan Eisen's enthusiasm for jewelry shines through her fun and functional work. There are a lot of good prac-

tical suggestions here, and though some in the industry might think her advice is simply common sense—such as not packing jewelry in your suitcase when you travel—I've heard of jewelry being lost in this manner countless times. Other chapters include "Redesigning Your Jewelry," "Medical Identification," "Cleaning It the Right Way," and "Knowing Your Jeweler." Ms. Eisen succeeds in relaying her advice in a casual, user-friendly manner, and the true-life stories from her career are both interesting and entertaining. Many of us will relate to her experiences, and the illustrations are colorful and attractive.

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## ERRATA

Two book reviews in the Fall 2008 issue, of *Amazonite: Mineralogy, Crystal Chemistry, Typomorphic Features and Infrared Reflection Spectrometry in Advanced Mineralogy, Gemology and Archaeometry*, both by Mikhail N. Ostrooumov, inadvertently misspelled the author's last name. In addition, the amazonite book was published by Polytechnics, St. Petersburg, not Nedra, Moscow.

Because of an oversight, Jared Nadler of Birmingham, Alabama, was omitted from the list of 2008 Challenge Winners in the Fall issue.

*Gems & Gemology* regrets the errors.



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