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G&G

Online Book Reviews

The Diamond Compendium

By DeeDee Cunningham, 888 pp.,
illus., publ. by NAG Press, London,
2011. US\$225.00

This hardcover tome of nearly 900 pages is filled with pertinent illustrations. The book is comprised of 20 chapters divided into sections that cover all aspects of diamonds: origin, crystallography, global occurrences, exploration, mining methods, cutting, polishing, grading, and identification. Simulants and synthetic diamonds are also reviewed.

The compendium is not meant to be read cover to cover; it is a reference work to be consulted on specific topics, some of which are explored in greater scientific depth. As expected from a highly skilled gemologist and jeweler, the sections on crystallography, physical properties, cutting, polishing, and grading are the strongest, while the text on global occurrences contains a few inaccuracies. For instance:

- The Lomonosov kimberlite cluster, 100 km north of Arkhangelsk in northwestern Russia, is not close to the Finnish border but 500 km to the east of it.
- The Golconda alluvial diamond field is not located near the ancient Golconda fortress but at least 250 km to the southeast.
- No kimberlites or other primary diamondiferous rocks have ever been found in Guyana, and certainly not the 14 kimberlites quoted on page 119.

There is also a slight problem on page 207, in the paragraph on airborne prospecting. Most airborne prospecting is carried out to detect local differences in the earth's magnetic field caused by mineral deposits (such a survey is shown in photo 5.1). The two sentences about Falcon technolo-

gy for airborne gravity gradient surveying are out of place and should be reworked to avoid confusion with magnetic surveying. Apart from these items, the information is well researched and clearly written.

The author takes great care in presenting the correct terminology. She explains the different meanings of *form* and *habit* in crystallography, and why lonsdaleite (a hexagonal polymorph of diamond) is not a kind of diamond but a different mineral. The chapters on evaluating carat weight, clarity, color, and cut offer useful tips on how to hold and angle the diamond for best results. The chapter on color examines how color is perceived, while others review color treatments and recutting to enhance brilliance. The chapters on identification of natural diamond, simulants, and synthetic diamond are very good.

The Diamond Compendium took seven years to compile, and the information is up to date to 2007. The wide range of topics makes it an important reference source and handbook with practical tips for use in gemology.

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Precious Objects: A Story of Diamonds, Family, and a Way of Life

By Alicia Oltuski, 370 pp., publ. by
Scribner, New York, 2011. US\$24.00

Book editors often say every story has been told before, so the secret of a good book lies in the telling. Certainly, the past two decades have seen numerous books describing how diamonds are formed deep within the earth, how De Beers gained control of rough diamond production, how stones are bought and sold, and their

role in the corridors of luxury—and in civil conflict. But Ms. Oltuski, whose father and grandfather were both diamond dealers, understands the book editors' maxim and manages to capture all of these topics honestly and in a deeply personal way to create an engaging, well-written work.

Ms. Oltuski is a skilled writer who can transform the everyday dealings of a diamond office into entertaining stories, without resorting to the sensationalist tales of chasing multimillion dollar stones and dodging international jewel thieves that other authors have created to pack drama into an essentially mundane buy-and-sell world. The result is a realistic account of New York's diamond community, down to the duct-taped jewelry cases.

The early chapters focus on the art of the deal. Stories are told of her father's negotiations with clients (who's fibbing and who's really offering genuine prices), her mother's stops to help with stone deliveries on the way to her own job, the weight her grandparents' reputation still carried years later, and a childhood where security and secrecy came home from the office.

In the middle chapters she artfully weaves in personal anecdotes and observations to transform the oft-told clichés about New York's diamond industry into fresh, appealing reading. The accounts of how diamonds are formed deep beneath the earth, the workings of De Beers's sight system (albeit a bit out of date in today's multi-source environment), the mores of the Hasidic Jewish community, and 47th Street's love-hate relationship with Martin Rapaport's price list—they are all here, but in a new dress.

Her portrait of her grandfather Yankel ("Jack" to the New Yorkers) is an intimate account of how diamond families came into being after the

upheavals of World War II. Yankel was a natural trader, scratching a living in post-war Europe by scrounging scarce items and swapping them for merchandise he could swap for even more goods. That led him to diamonds. Yankel's story is one of survival, like that of many New Yorkers from his generation who had come there to begin life anew and raise a family. The stories of those who experienced the horrors of war, the Holocaust, and mass displacements cannot be told often enough before they pass on.

In the end, Ms. Oltuski's book is an honest look at the diamond trade. And in telling this story, it becomes obvious that the book's real precious objects are not the gemstones, but her family members and the other men and (few) women who inhabit New York's diamond district.

RUSSELL SHOR

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Diamonds in Nature: A Guide to Rough Diamonds

*By Ralf and Michelle C. Tappert,
142 pp., illus., publ. by Springer
Verlag, Heidelberg, Germany, 2011.
US\$60.00*

Husband-and-wife team Ralf and Michelle Tappert offer a prime example of how a scientific text should be written and illustrated. The subject matter is handled in clear, concise sentences accompanied by Mr. Tappert's superb photographs. As it says in the foreword, there are many books that discuss diamond's optical, physical, and gemological properties, but few on rough diamonds and how they appear in nature. *Diamonds in Nature* does exactly this and does it admirably well.

This book is not for the general reader but for diamond gemologists and geologists. It gives a comprehensive account of every feature of rough diamonds, including their origin, morphology, colors, surface textures, and

mineral inclusions. The glossy text is accompanied by photos and diagrams, more than 300 references, and a helpful index. The authors avoid confusing and excruciating detail and provide references to relevant literature for further particulars.

Everything gets a mention. The "Origin" chapter, for instance, discusses cratons, diamonds from lithospheric mantle roots to upper parts of the lower mantle, types of diamond, diamonds in metamorphic crustal rocks from Kokchetav to Jack Hills, diamonds in impact structures and meteors, and presolar specimens. The "Morphology" chapter recognizes three major types: monocrystalline, fibrous, and polycrystalline (including types of carbonado). Habits are divided into regular, irregular, twins, and macles, and photos show representative crystals. In the "Colors" chapter there are details on colorless, yellow, blue, brown, pink, purple, green, and brown-spotted diamonds. Well-chosen photos in the "Surface Textures" chapter show various surface features occurring preferentially on certain crystal faces, such as terraces, hill-ocks, micro-disks and micro-pits, frosting, ruts, edge abrasion, scratches, and percussion marks. The "Inclusions" chapter recognizes three types by origin (protogenetic, syngenetic, and epigenetic) and four types by mineralogy (peridotitic and eclogitic suites as lithospheric inclusions, an asthenosphere/transition zone suite, and a lower mantle suite as sublithospheric inclusions).

The volume also contains a list of unconfirmed and rare mineral inclusions, with a selected reference for each. Mineral inclusions of all types are covered in the text, accompanied by beautiful color illustrations. Carbon isotopes and the sources of carbon (organic, mantle, or carbonates) are discussed briefly, as are the ages of diamonds.

In summary, I recommend this thoroughly informative text to all readers interested in the subject of rough diamonds.

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MEDIA REVIEW

What's Hot in Tucson 2010. DVD (three discs), approx. 6 hours, released by Blue Cap Productions [www.bluecapproductions.com], Marina del Rey, CA, 2011. \$39.95

What's Hot in Tucson 2010—Gems & Jewelry. DVD, approx. 2 hours, released by Blue Cap Productions [www.bluecapproductions.com], Marina del Rey, CA, 2011. \$24.99

What's Hot in Tucson 2010 is the fourth in Blue Cap's series of videos that take viewers behind the scenes of the city's major mineral shows. The three DVDs, cohosted by David Wilber and Bob Jones, provide hours of interviews with mineral dealers at five different venues: the InnSuites hotel, the Pueblo Inn Gem & Mineral Show, the Fine Minerals International house, the Westward Look resort, and the TGMS Main Show at the Tucson Convention Center.

The program highlights the newest and finest minerals in the market, showing superb examples of exotic and classic mineral specimens. The cohosts are subject experts, and the interviews provide valuable information about the specimens, such as locality, formation, and mining techniques. The production values are high, allowing the viewer to appreciate the minerals' beauty and details.

This video series also includes the first installment of *What's Hot in Tucson—Gems & Jewelry*, which offers an insider's look at the American Gem Trade Association show at the Tucson Convention Center. The AGTA GemFair is where many of the year's trends and new products debut. This segment is hosted by Delphine Leblanc, who conducts interviews on the floor with some of the biggest names at the show, including cutters, designers, and dealers in estate jewelry, specialty colored gemstones, pearls, and colored diamonds.

From novice to expert, there is something for everyone in this eight-hour DVD package.

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