Book Review

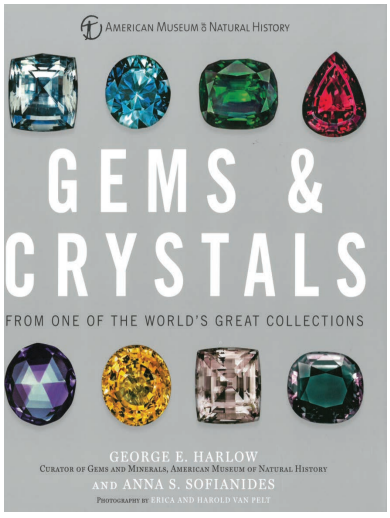
Book Review: Gems & Crystals From One of the World's Great Collections. By George E. Harlow and Anna S. Sofianides (2015) American Museum of Natural History, Sterling Signature, 215 p. $27.95.

This beautifully illustrated and informative book on gems and crystals of the American Museum of Natural History is a 25-year update of the original version titled *Gems & Crystals from the American Museum of Natural History*. This newer edition contains new images and scientific data along with revisions and updates on the original book. George Harlow has focused on gem properties and mineral origins, while Anna Sofianides contributed information on gemstone history, lore, and gem evaluation. Both authors do an admirable job and have provided a wealth of information to the public.

The introduction provides a brief description of the history of the museum's gem collection, some of the high profile donors (J.P. Morgan and son, Harry Guggenheim, George Kunz, Charles Tiffany), past and present curators, the famous jewelry heist from the Morgan Memorial Hall in 1964, and a discussion on the scientific and public importance of national museums. This section provides a strong basis for the remainder of the book. The remainder of the book is divided into two parts: The World of Gems and Gallery of Gems and Crystals.

Part one, The World of Gems, includes a short history of gem use by humans (from the Upper Paleolithic period to present) and a long analysis of gemstone mineralogy, crystallography, and optical properties. The first portion (Tracing the Story of Gems) walks one through early discoveries of stone ornaments, gem trade in the Mediterranean region, magical and medicinal uses of minerals, chroniclers tales of minerals and gems, and early gem dealers (Marco Polo and Jean-Baptiste Tavernier). The second portion (What is a Gem?) performs a great service of describing mineralogy, crystal chemistry, and optical phenomena in an accurate and concise manner. The authors are able to convey a difficult subject in a manner that both layman and professionals can appreciate.

Part two of the book, Gallery of Gems and Crystals, is a definitive look at the great gem and mineral treasures at the American Museum of Natural History. In this lengthy portion of the book, the authors describe precious gems, semiprecious gems, rocks as gems, organic gems, and rare gemstones. The chapters cover: diamond, corundum, beryl, chrysoberyl and spinel, topaz, tourmaline, zircon and peridot, turquoise and lapis lazuli, opal, feldspar, jade, quartz, chalcedony and jasper, garnet, pearls and other organic gems, and rare and unusual gemstones. This is quite a long list of gems that display the broad depth and quality of the museum's holdings. Each chapter includes an introduction, properties, historical notes, legends and lore, occurrences, and finally evaluation criteria. At the beginning of each chapter is an inset box containing the material's physical properties, chemical formula, and crystal symmetry, along with a high quality photograph of some of the museum's iconic specimens. The individual chapters contain a wealth of information on the minerals that produce gems, and the reviewer was particularly intrigued by the information contained in historical notes and legends and lore. I had not previously encountered such information in that concise and readable manner. Those sections really brought the gems history and desirability to life.



As with any well-done reference book, this one has a strong reference list, a group of books for further reading, journals of interest, and three online resources. All of these sources are a welcome and thoughtful addition. Errors were truly minimal for such a data filled and comprehensive book. Two such errors occur where the authors refer to items on other pages. First: on page 46 they refer to the Schettler emerald on page 45, when in fact the photo is on page 49, and second: on page 71 they refer to the island of Zabargad (see page 81) but the isle's description is on page 91. The only other "error" found was the color of peridot cut gems in the photo on page 93. The color seems very dark, almost an evergreen color, which is not typical of gem peridot. None of these trivial items detract from the intent of the book in the least.

This book should be popular to a wide-ranging audience. The general public will enjoy the captivating information and beautiful photos of the gems at the American Museum of Natural History in New York. It will also hold a place on the shelves of gemologists and professional jewelers as a reference standard for breathtaking gems. This volume should also be considered as a reference textbook for aspiring gemology and jewelry students.

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