

GEMS AND GEMSTONES

Timeless Natural Beauty of the Mineral World

LANCE GRANDE AND ALLISON AUGUSTYN



FIGURE 30.

Top: Collection of faceted blue sapphires from Sri Lanka showing the variation of color hue, and ranging in weight from 1.1 carats to 19.1 carats (FMNH H43-2, H43-3, H50, H51, H54, H58, H60, H61, H72, H1289, H1749 TO H1751, H1773, H1774, H1793, H1795, H1798, H1799).
Bottom: Large blue star sapphire of 131.8 carats from Sri Lanka measuring 27 × 27 × 18 mm (FMNH H66-1).





FIGURE 34.

Star sapphire pendant, "Etoilles," designed by Lester Lampert in 2008 for the Grainger Hall of Gems. The sapphire, from Sri Lanka, is 38.8 carats and is set in 18-karat white Gold (FMNH H2540).



FIGURE 80.

Two precious black Opal pins made in the early twentieth century from Australia.

Top: Triangular-shaped cabochon mounted in 14-karat yellow Gold surrounded by 18 brilliant-cut Diamonds. Opal cabochon measures 24 mm across the top (FMNH H1517).

Bottom: Oval cabochon measuring 16 × 19 mm mounted in 14-karat Gold with Diamonds and two rubies (FMNH H1516).

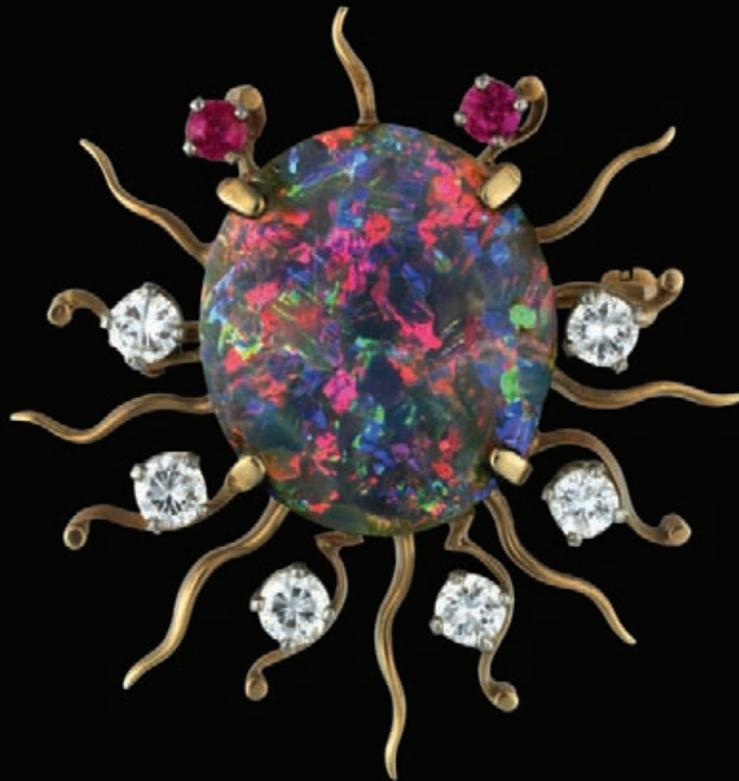




FIGURE 25.

Natural crystals of ruby on white marble matrix. Specimen measures 120 mm high and is from Yen Bai Province, Vietnam (FMNH H2326-1).



FIGURE 212.

Ceremonial knife from eighteenth-century Jaipur, India, with jeweled green nephrite handle including Pearls, emeralds, and rubies. Knife measures 359 mm in length (FMNH A259380).



FIGURE 182.
Faceted grandite
Garnet, a mix of
Andradite and
demantoid Garnet,
from Mali. Tear-drop-
shaped 4.1-carat gem,
measuring 11 × 9 × 6 mm
(FMNH H2476).

FIGURE 131.

Natural crystal
of green Elbaite
Tourmaline with
Feldspar matrix from
Minas Gerais, Brazil.
Length of the main
crystal is 75 mm
(FMNH H2448).





FIGURE 254.

South Sea baroque Pearl of 15 × 12 mm, set in 18-karat Gold with round brilliant-cut Diamonds.

Designed by American Modernist goldsmith and jewelry designer Arthur King in the late 1960s. Top and side views (FMNH H2550).

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Pearls 000
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Diamond (*colorless, colored, black*) 000
 Corundum (*ruby, sapphire*) 000
 Chrysoberyl (*alexandrite, cymophane, cat's-eye*) 000
 Spinel (*red, blue, other*) 000
 Quartz (*amethyst, citrine, and other*) 000
 Opal (*black, white, fire*) 000
 Topaz (*blue, imperial, other*) 000
 Beryl (*emerald, bixbite, aquamarine, heliodor, morganite, pale green, and goshenite*) 000
 Cordierite 000
 Phenakite 000

TOURMALINE GROUP 000

Elbaite Tourmaline (*verdelite, rubellite, indicolite, canary, achroite, bicolor, watermelon, cuprian*) 000
 Dravite Tourmaline 000
 Schorl Tourmaline 000
 Liddicoatite Tourmaline 000

GARNET GROUP 000

Almandine Garnet 000
 Pyrope Garnet (*including rhodolite*) 000
 Spessartine Garnet (*including mandarin, malaia, umbalite*) 000
 Grossular Garnet (*hessonite, tsavorite, rosolite, leuco*) 000
 Andradite Garnet (*demantoid, topazolite, mali, melanite*) 000
 Uvarovite Garnet 000
 Zircon (*hyacinth, jargon, starlight, matara*) 000

PYROXENE GROUP 000

Spodumene (*kunzite, hiddenite, triphane*) 000
 Jadeite 000
 Actinolite (*nephrite and cat's-eye*) 000
 Zoisite (*tanzanite, thulite, anyolite*) 000
 Forsterite (*peridot, chrysolite*) 000

FELDSPAR GROUP 000

Orthoclase Feldspar (*moonstone*) 000
 Albite Feldspar (*moonstone*) 000
 Albite-Anorthite Feldspar (*labradorite*) 000
 Benitoite 000
 Turquoise 000

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Timeless Natural Beauty of the Mineral World

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Gems are objects of wealth, icons of beauty, and emblems of the very best of everything. They are kept as signs of prestige or power. Given as tokens of love and affection, they also come in a kaleidoscopic array of hues and can be either mineral or organic. Gems can command a person's gaze in the way they play with light and express rich color. And they can evoke feelings of passion, greed, mystery, and warmth.

For millennia, gems have played an important role in human culture: they have significant value, both financially and within folklore and mythology. But just what *are* gems, exactly? This lavishly illustrated volume—the most ambitious publication of its kind—provides a general introduction to gems and natural gemstones, conveying their timeless beauty and exploring similarities among different species and varieties. *Gems and Gemstones* features nearly 300 color images of the cut gems, precious and semiprecious stones, gem-quality mineral specimens, and fine jewelry to be unveiled in a new Grainger Hall of Gems at The Field Museum in Chicago this October. The book and exhibition's overarching theme will be the relationship between finished gems and their natural origin: while beautiful as faceted and polished pieces of jewelry, gems are often just as lovely—or even more so—as gemstones in their natural state. For example, an aquamarine or emerald as originally found in a mine with its natural crystal faces can be as stunning as any cut and polished gem prepared for a ring, bracelet, or charm.

Thoughtful of both ancient and modern times, *Gems and Gemstones* also includes fun-filled facts and anecdotes that broaden the historical portrait of each specimen. When Harry Winston, for instance, donated the Hope Diamond to the Smithsonian in 1958, he sent it through the U.S. mail wrapped in plain brown paper. And for anyone who has ever marveled at the innovations of top jewelry designers, *Gems and Gemstones* features a dazzling array of polished stones, gold objects, and creations from around the world. Diamonds, sapphires, rubies, amethysts, pearls, topaz, amber—every major gem gets its due in what will be an invaluable source on the subject for years to come.

LANCE GRANDE is senior vice president and head of collections and research at The Field Museum. He is a curator in the geology department and a general content specialist for The Field's new Grainger Hall of Gems exhibit. He is also a member of the Committee on Evolutionary Biology at the University of Chicago and is an adjunct professor of biology at the University of Illinois. ALLISON AUGUSTYN, a funding specialist at The Field Museum, was previously an exhibition developer there, where she prepared such exhibits as *The Ancient Americas*, *George Washington Carver*, and *The Grainger Hall of Gems*.

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