

Diamonds from Guyana, Ekanite from Sri Lanka, a New Amber Source in Vietnam, and More...



Welcome to the Summer issue of *Gems & Gemology*! This installment is packed with interesting new content, including five feature articles ranging from reports on new and lesser-known gem sources to a study of the emeralds once embedded in the crown of Napoleon III.

In our lead article, Roy Bassoo and Kenneth Befus explore diamonds and diamond mining in Guyana. Drawing on their own observations of diamonds from various alluvial deposits, coupled with government reports, datasets, and historical accounts, the authors provide an overview of diamond production and mining practices in Guyana, along with findings on color, morphology, nitrogen content, and luminescence.

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Our second article investigates the uneven shapes and surface features of ekanite from Sri Lanka. Lutz Nasdala and his team analyze ekanite fragments and ekanite-containing specimens of rock discovered near Ampegama, comparing the samples to those from other Sri Lankan sources to identify the processes that led to the distinctive shape and surface features.

As part of an ongoing effort to research gemstones of historical significance, Stefanos Karampelas and coauthors present their analysis of 45 “emeralds” formerly set in the coronation crown of Napoleon III. Using nondestructive mobile spectroscopic and gemological means at Mines Paris - PSL, they verified that 41 of these 45 gems were emeralds, likely of Colombian provenance, while the remaining four were glass containing iron and/or copper.

Next, a team led by Le Ngoc Nang examines the gemological properties and commercial potential of a newly discovered amber source on Phu Quoc island in Vietnam. They conclude that based on the high quality of the amber and the wide distribution of the host rock on the island, Vietnam’s only known amber locality may have a promising future in the market.

In our final article, Dariusz Malczewski and colleagues present their study on natural radioactivity in nephrite. After examining 11 serpentinite-related nephrite samples from Poland, Russia, Canada, and New Zealand, the authors determined that there is no radiological risk to handling nephrite and that the levels of the radioactive isotopes studied are very low.

Our regular columns deliver interesting finds from around the world. Highlights from the *Lab Notes* section include a very rare large bright orange benitoite, the famed De Beers Cullinan Blue diamond, and pearls embedded with RFID devices. In *Micro-World*, the inner beauty of gems comes alive with an impressive blue apatite inclusion in garnet, eye-visible etch channels in a natural diamond, and a rock fragment exhibiting a very realistic eye pattern. *Gem News International* keeps you up to date with the latest developments, including unusual chatoyancy in omphacite *fei cui* jade, a company with a mission to support women in the gem trade, testing of color instability in yellow sapphire, and a museum exhibit celebrating a major tourmaline discovery in Maine. *Colored Stones Unearthed* returns to cover inclusions in gems, explaining how they form, how they are studied, and what they mean for gemologists and geoscientists.

Finally, we invite you to join our Facebook group at www.facebook.com/groups/giagemsgemology. Since its launch in February 2020, our growing community has surpassed 25,000 members. Thank you for your continued support and interest in *G&G*!

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