

# TWENTIETH ANNUAL SINKANKAS SYMPOSIUM Gems & Minerals of Burma (Myanmar)

Saturday, April 25, 2026

GIA World Headquarters  
Carlsbad, CA

The one-day event features 10 speakers on topics related to one of the most storied gem-producing regions of the world. Specialists noted in their fields will discuss geology, field gemology, geochemical characterization of sapphires, inclusion features in Burmese gems, modern mining and production, market reports, jade nomenclature, history of jadeite, pearls, and the quest for Burma's finest and rarest gems. This year's event and proceedings are dedicated to Professor George R. Rossman.

**Venue:** GIA World Headquarters | The Robert Mouwad Campus  
5345 Armada Drive, Carlsbad, CA 92008

**Sponsors:** Gemological Institute of America  
and Geo-Literary Society

**Registration:** NOW OPEN through April 24, 2026, noon PDT  
Short URL: <https://bit.ly/sinksymp2026>

**Cost:** US \$200.--

**What's included:** One copy of the printed proceedings volume (value \$47.00), morning and afternoon refreshments, boxed lunch. A reception in the GIA rotunda follows. The venue features an exhibition of "Temples & Treasures of Southern Asia" and booksellers will have specialty publications on gem and minerals available for purchase.

**Contact:** Issues with registration? [phammers@gia.edu](mailto:phammers@gia.edu)

**Sign-in,** 7:30 – 8:40AM

**continental Program starts at 8:50AM sharp.** Concludes  
**breakfast:** at 4:45PM. Reception follows at GIA.

**The Rules:** No on-site/same-day registration.  
Valid government picture ID.  
All attendee names must be on the list at the gate – no grouping of reservations under one name.

**Website:** [sinkankassymposium.net](http://sinkankassymposium.net)

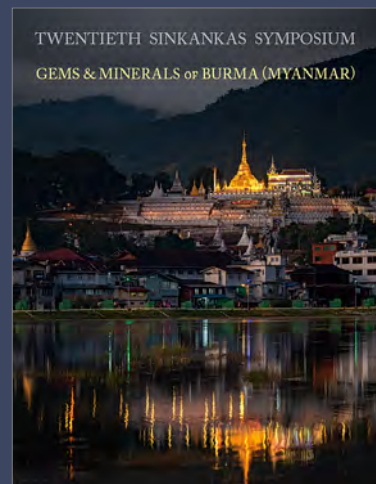


Ruby in marble matrix from Baw Badan, Mogok Stone Tract, Burma. Courtesy of William Larson, photo by Robert Weldon.

## Speakers\*

Dr. Rachele Turnier  
Dr. Aaron Palke  
Wim Vertriest  
Roland Schluessel  
Nathan Renfro  
Richard Hughes  
Dr. Laichen Sun  
Dr. Tao Hsu  
Stuart Robertson  
William Larson

\* *Speakers and program subject to change without notice.*



# TWENTIETH SINKANKAS SYMPOSIUM GEMS & MINERALS OF BURMA (MYANMAR)

April 25, 2026

GIA World Headquarters and The Robert Mouawad Campus  
5345 Armada Drive, Carlsbad, CA 92008  
S. Tasaki Student Lecture and Graduation Hall

Hosted by  
Gemological Institute of America and Geo-Literary Society

## PROGRAM

Greetings, Coffee Hour: 8:00

Robert Weldon - Introduction 8:50 - 9:00

Dr. Rachele Turnier - Geology of Burmese Corundum 9:00 - 9:30

Dr. Aaron C. Palke - Geology of Burmese Non-Corundum Gems, Including Peridot 9:35 - 10:05

Wim Vertriest - Field Gemology in Burma 10:10 - 10:40

Break: 10:45 - 11:00

Roland Schluessel - Gems of Mogok 11:00 - 11:30

Nathan Renfro - Inclusions in Burmese Gems 11:35 - 12:05

Lunch: 12:15 - 1:00

Richard W. Hughes - Burmese Jade 1:00 - 1:40

Dr. Laichen Sun - Burmese Jadeite in China (1580-1911) 1:45 - 2:15

Dr. Tao Hsu - Treasures from the Coastlines of Myanmar: Burmese Pearls 2:20 - 2:50

Break: 2:55 - 3:10

Stuart Robertson - Market Report: Burmese Gems 3:10 - 3:40

William F. Larson - From Myth to Market: In Search of Burmese Gem Crystals 3:45 - 4:15

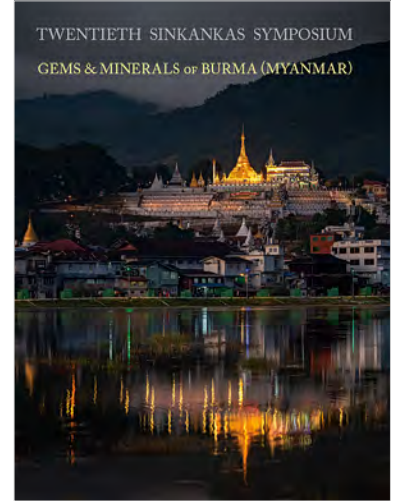
Robert Weldon - Concluding Remarks and Acknowledgments 4:20 - 4:45

Reception: 4:45 - 6:30

# TWENTIETH SINKANKAS SYMPOSIUM GEMS & MINERALS OF BURMA (MYANMAR)

Stuart Overlin and Lisbet Thoresen, editors  
Photographs by Mia Dixon, Jeffrey Scovil, Harold & Erica Van Pelt,  
Orasa Weldon and Robert Weldon

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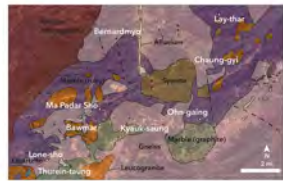
Selected Bibliography



Dedication – George R. Rossman



George Harlow  
George R. Rossman: A Remembrance



### Geochemical and Temporal Variations Among Mogok Sapphires

Rachelle B. Turnier, Tyler Blum, Kouki Kitajima, Aaron C. Palke and John W. Valley

THE MOGOK STONE TRACT in Myanmar is a sapphire-bearing area with specific geochemical characteristics. Despite the widespread presence of sapphire deposits in the gemstone trade (Figure 1), there is a paucity of data on their origin. Apart from the ability of getting access to Mogok, identifying mineral and fluid inclusions, and other features, making it difficult to understand their relationship to the host rock, the sapphirine and sapphirine-bearing mafic gneisses.

Figure 1: A large pile of rough blue sapphires and a single faceted blue sapphire gemstone. Figure 2: A geological map of the Mogok Stone Tract showing various regions like Bama, Ma Pader, and others.



### General Geology of Gem Deposits From the Mogok Stone Tract

Aaron C. Palke

IT IS AN INTERESTING FACT that the world's most important gemstones were produced from igneous rocks. In fact, most gemstones are produced from igneous rocks, with the exception of diamonds, which are produced from metamorphic rocks. The world's most important gemstones are sapphires, rubies, emeralds, and diamonds. Sapphires and rubies are produced from igneous rocks, while emeralds and diamonds are produced from metamorphic rocks.

Figure 1: A collection of various colored gemstones including sapphires, rubies, and emeralds. Figure 2: A group of people working in a field, likely related to gemstone mining or processing.

Rachelle Turnier, Tyler Blum, Kouki Kitajima, Aaron C. Palke and John W. Valley  
Geochemical and Temporal Variations Among Mogok Sapphires

Aaron C. Palke  
General Geology of Gem Deposits From the Mogok Stone Tract



### Field Geology in Myanmar

Wim Vertrieet

FIELD GEOLOGY IN MYANMAR is a complex task due to the lack of infrastructure and the presence of various ethnic groups. The Mogok Stone Tract is a key area for sapphire mining, and understanding its geology is crucial for the industry. The field geology involves mapping the distribution of gemstone deposits and understanding the geological processes that have shaped the region.

Figure 1: A person working in a field, likely related to gemstone mining or processing. Figure 2: A landscape view of a valley, likely the Mogok Stone Tract.



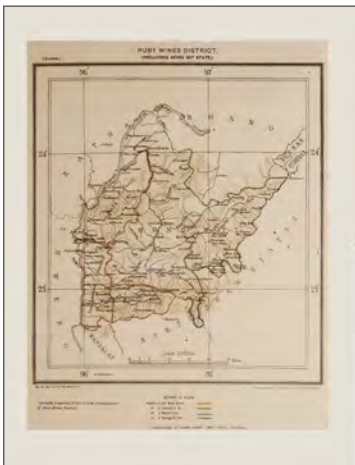
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Figure 1: A group of people working in a field, likely related to gemstone mining or processing. Figure 2: A landscape view of a valley, likely the Mogok Stone Tract.

Wim Vertrieet  
Field Geology in Myanmar



### Gems of Mogok

Roland Schluessel

INTRODUCTION  
The Mogok Stone Tract is a key area for sapphire mining in Myanmar. It is located in the central part of the country and is known for its high-quality sapphires. The region has a long history of gemstone mining and is an important part of Myanmar's economy.

Figure 1: A historical map of the Mogok Stone Tract showing various regions and locations. Figure 2: A landscape view of a valley, likely the Mogok Stone Tract.



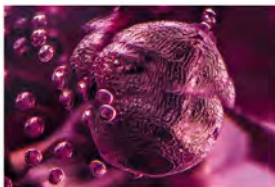
### SPELLS A SPECTRUM OF COLORS

Roland Schluessel

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Figure 1: A collection of various colored gemstones including sapphires, rubies, and emeralds. Figure 2: A large collection of various colored gemstones arranged in a circular pattern.

Roland Schluessel  
Gems of Mogok



Inclusions in Burmese Gems

Nathan Renfro

**BURMESE GEMSTONE** is a country on Earth that produces a diversity of gemstones, most notably rubies and sapphires. Burmese rubies are famous for their "rutile needles" inclusions, which are tiny, needle-like inclusions of rutile that give the stones a "cat's paw" appearance. These inclusions are a result of the high-pressure, high-temperature conditions under which the stones formed. The rutile needles are often oriented in a specific direction, and their presence is a key indicator of a stone's origin. In this article, we explore the science behind these inclusions and how they affect the value and appearance of Burmese gemstones.

**Below:** This natural Burmese contains a large rutile crystal with a curved, fibrous, and somewhat transparent structure of rutile as an inclusion. Some inclusions of the John Koehn Collection. Photographed by Nathan Renfro. Field of view 4.5 mm.

**Facing page:** An enhanced Burmese ruby containing an inclusion of corundum, shown in isolated light. Photographed by John Koehn.

Nathan Renfro  
Inclusions in Burmese Gems



Hyperion – Mapping the Hidden Worlds Within Stones

E. Billie Hughes

**HYPERION** is the world's first available gem inclusion database. Created by E. Billie Hughes, it brings together a vast collection of images, each with a detailed description and key data, including gemstone type, origin, and color. The database is designed to help gemologists, collectors, and researchers identify and understand the hidden worlds within stones. It features a user-friendly interface and a comprehensive search function, making it an essential tool for anyone interested in gemology.

**Below:** An enhanced Burmese ruby containing a rutile crystal. Rutile or rutile inclusions are the crystal field of the stone. Photo by E. Billie Hughes/Curtis Collection, Bangkok.

**Facing page:** Viewed from several perspectives, an included rutile crystal within an enhanced Burmese ruby. Photo by E. Billie Hughes/Curtis Collection, Bangkok.

E. Billie Hughes  
Hyperion—Mapping the Hidden Worlds Within Stones



BROKEN BANGLE

THE BLUNDER-BESMIRCHED HISTORY OF JADE NOMENCLATURE

By Liu Shang, Richard W. Hughes, Zhou Zhengyu & Kaylan Khourie



**THE SEARCH FOR A SOLUTION**

One of the greatest challenges in writing about jade is the sheer volume of information available. The Chinese and English languages have developed different terms for jade, and these terms have often been used interchangeably. This has led to confusion and misunderstanding, particularly in the context of jade nomenclature. In this article, we explore the history of jade and the challenges of writing about it. We discuss the different types of jade and the various names used to describe them. We also explore the cultural significance of jade and the role it has played in Chinese history and art.

Liu Shang, Richard W. Hughes, Zhou Zhengyu  
and Kaylan Khourie  
Broken Bangle: The Blunder-Besmirched History  
of Jade Nomenclature



Treasures from the Coastlines of Myanmar: Burmese Pearls

**MYANMAR** is a beautiful country with a rich history and a diverse culture. One of the most famous treasures of Myanmar is the Burmese pearl. These pearls are known for their lustrous surface and elegant shape. They are often used in jewelry and are highly valued for their beauty and rarity. In this article, we explore the history of Burmese pearls and the challenges of writing about them. We discuss the different types of pearls and the various names used to describe them. We also explore the cultural significance of pearls and the role they have played in Myanmar history and art.

Tao Hsu  
Treasures from the Coastlines of Myanmar: Burmese Pearls



Market Report: Burmese Gems

Stuart Robertson

**MARKET REPORT** on Burmese gems has long been a staple of the gemstone industry. It provides a comprehensive overview of the market, including the latest trends, prices, and supply and demand. In this report, we explore the current state of the Burmese gemstone market and the challenges of writing about it. We discuss the different types of gems and the various names used to describe them. We also explore the cultural significance of gems and the role they have played in Myanmar history and art.

**Below:** A photograph of several different colored Burmese gemstones, including rubies, sapphires, and emeralds, set against a dark background.

Stuart Robertson  
Market Report: Burmese Gems



From Myth to Market: In Search of Burmese Gem Crystals

**FROM MYTH TO MARKET** is a journey of discovery and exploration. It explores the history and culture of Burmese gem crystals and the challenges of writing about them. The book features a wealth of information, including the latest trends, prices, and supply and demand. It also explores the cultural significance of gem crystals and the role they have played in Myanmar history and art. The book is a must-read for anyone interested in the world of Burmese gemstones.

**Below:** A photograph of a large, faceted Burmese gemstone with a complex internal structure of inclusions, set against a dark background.

William Larson  
From Myth to Market: In Search of Burmese Gem Crystals