*********** Gubelin Newsletter #37, August 29, 2012

Headlines:

- *** Join Gubelin Green Gems event and visit us at the Hong Kong Jewellery and Gem Fair in September
- *** Gubelin Gem Lab proposes to include omphacite in the jade family
- *** Publication on new source of red spinel in Lang Chap, Vietnam
- *** Study on golden chalices from the early 17th century published
- *** Note on large freshwater cultured pearls with beads
- *** Gubelin researchers lecturing at the International Geological Conference

*** Join Gubelin Green Gems event and visit us at the Hong Kong Jewellery and Gem Fair in September:

The Gubelin Gem Lab Hong Kong is inviting you to its Green Gems seminar taking place on Saturday, September 22, 2012 from 2.30 pm - 5.00 pm. Our Chief Gemmologist, Dr. Lore Kiefert, will be pleased to shed light on the fascinating world of precious green stones. We look forward to welcoming you to this event in the Hong Kong Convention Center (HKCEC), Wanchai, Room S223, Old Wing. At the Hong Kong Jewellery and Gem Fair in September Gubelin will have its own booths and welcomes visitors in both the AsiaWorld-Expo – booth 6Q00 – and in the Convention and Exhibition Centre – booth 057 in Hall 3M. Customers can drop off their stones at either location or in our laboratory in Central. Our staff also welcomes visitors seeking information about our activities and services in general.

*** Gubelin Gem Lab to include omphacite in the jade family:

Gem-quality jadeite and nephrite are broadly considered to be jade. As evidenced in a research project between the University of Parma, Italy, the Gubelin Gem Lab and others, many historic jade items do in fact consist, fully or partly, of omphacite. This is neither surprising nor dramatic: omphacite and jadeite belong to the same group of minerals (pyroxenes), grow in the same crystal system and have similar causes of colour. In addition to their mineralogical and chemical affinities, their appearances are very similar, too: both minerals form dense, solid aggregates of closely interlocked crystals yielding the supreme toughness jade is known for. Distinguishing omphacite from jadeite calls for sophisticated analytical equipment; moreover, meaningless or misleading results can arise, because the two minerals on occasion merge to form rocks, making the identification of a single mineral futile. For these reasons, Gubelin has decided to consider omphacite a type of jade alongside jadeite and nephrite, the two minerals already broadly recognised as jade.

*** Publication on new source of orangy-red spinel in Lang Chap, Vietnam:

Gubelin researchers, in cooperation with Thomas Armbruster from the University of Berne, have investigated spinels from a new source at Lang Chap, Vietnam, for their gemmological, spectroscopic and chemical characteristics. This site mainly produces spinels of orangyred to orangy-pink colour with inclusions and a chemical composition that closely resemble similar coloured spinels from Myanmar. Preliminary heat treatment experiments have shown that the orange component can be reduced to better reveal the red component. The heat treatment can be identified by spectroscopic methods. An abstract of the study published in the latest issue of the Journal of Gemmology may be found on our website.

*** Study on golden chalices from the early 17th century published:

The gems that adorn two golden chalices at Einsiedeln Abbey, Switzerland, crafted in 1609 and 1629 were investigated by a team of researchers from the Swiss National Museum and Gubelin's Dr. Stefanos Karampelas. Using classic gemmology as well as more advanced methods, 16 corundums (15 rubies and 1 sapphire), several garnets (almandine and grossular), quartzes (amethyst and citrine) and peridots (forsterite olivine) were identified, as were 23 diamonds. The pearls were found to originate from saltwater molluscs. The authors suspect an 'oriental' origin for the stones on the chalices. See the Gubelin Gem Lab website for an abstract of the publication.

*** Note on large freshwater cultured pearls with beads:

Since mid-2011 our lab has received several high-quality round to near-round freshwater cultured pearls for grading. Some of these had spectacular greyish violet to violet-grey colour and reached sizes up to 18 mm. All of the examined samples were of natural colour and presented a drilled bead with a nacre thickness greater than 2 mm. A brief note on such samples appeared in the summer issue of G&G (see the publications section of our Gubelin Gem Lab website).

*** Gubelin researchers lecturing at the International Geological Conference:

The IGC conference in Brisbane, Australia, earlier this month hosted 220 symposia covering 22 themes and attracting more than 6000 attendees. The first theme, Geology for Society, comprised a session on gemstones that focused on all aspects of the gemstone industry from both a social science and geoscience perspective, with particular emphasis on gemstone identity, natural occurrence and abundance. This session was dedicated to the memory of Gubelin's previous chief gemmologist, George Bosshart. Three of the ten presentations in this session were delivered by Gubelin researchers and covered various subjects such as the chemical signatures of emeralds, corundums from various West African locations, and natural pearls.

The Gubelin Newsletter is issued periodically by the Gubelin Gem Lab and provides concise and up-to-date information on current topics in the jewellery and gemstone industry, as well as news from the Gubelin Gem Lab itself. Your e-mail address is on the distribution list of the Gubelin Gem Lab. To unsubscribe from the mailing list, reply to <u>info@gubelingemlab.ch</u> and type 'unsubscribe' in the subject line. All previous Gubelin Newsletters can be viewed in the news/archive section of the Gubelin website (<u>www.gubelingemlab.ch</u>).

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