Gemology & Lifestyle

GAMMA

Volume I Issue I

The ICA | Gemlab Journal

THE COVER

AN UNUSUAL DROP-SHAPED ‘MELO PEARL’

EDITOR'S NOTE

KENNETH SCARRATT & OMAR HATTA

G A M M A

ETHICAL, TRANSPARENT, AND RESPONSIBLE

Dear reader, welcome to the first edition of GAMMA, the Journal of the ICA | GemLab in Bangkok and the rest of the world.

GAMMA is set to become a regular feature of ICA | GemLab's outreach program and is designed to provide informative gemological and industry related content as well as relay our community's hopes and desires for the future, in a form (both electronically and hardcopy) that is easy and enjoyable to digest.

We believe in the community we serve, the wonderful individuals and characters, within the many large and small organizations globally. With consistent news reporting of gemological findings and industry innovations it is our desire to encourage dialogue and debate through these pages.

Indeed, it is the intention of ICA | GemLab to become an inclusive leader in the development of digital solutions for the gemological community as well as for the industry overall. Thus, GAMMA will also focus and report upon innovative solutions to industry needs and link these to the lifestyles that surround the wonderful world of gemstones and jewelry; providing a gateway to pioneering developments within the industry. It is our approach to bridging the gap between the industry and the lifestyle it creates.

"GAMMA" is our gemological journal, our gallery, our platform for education, and awareness. It is a showcase of our philosophy. Enjoy the read and discussions and please give us your thoughts and ideas for improvements.

The Editor's Desk

WELCOME TO THE TEAM

The ICA | GemLab welcomes new members to the team. A managing partner with over four decades of experience, a new chief scientist with expertise in advanced instruments and lab supervision, and a front office manager to cater to each client's specialized needs.

KENNETH SCARRATT
MANAGING PARTNER

Kenneth Scarrat started in the pearl and gemstone research field in 1973. Today, Kenneth is an accomplished author and lecturer heading lectures all over the world and authoring over 100 publications –including co-authoring a number of books: The Crown Jewels, The Pearl and The Dragon. An expert in his craft Kenneth has examined some of the world's finest gems including British Crown Jewels.

Throughout his career Kenneth has managed some of the most prestigious gemological centers. He oversaw the development of the GIA (Gemological Institute of America) in Bangkok, he was Laboratory Director of AGTA GTC (American Gem Trade Association Gemological Testing Center) in New York. In 2017, he was appointed the CEO of DANAT (the Bahrain Institute for Pearls and Gemstones), reviving Bahrain's pearl industry. And now, he brings his years of expertise to ICA | Gemlab
over four decades of experience, a new chief scientist with expertise in advanced instruments and lab supervision, and a front office manager to cater to each client's specialized needs.

DALE ALLYN
CHIEF TECHNOLOGY OFFICER

Dale Allyn has been a gemologist for approximately 40 years, as a fellow of the Gemmological Association of Great Britain (Gem-A, F.G.A.) and a Graduate Gemologist (G.G.) from the Gemological Institute of America (GIA). His diverse background includes retail and wholesale jewelry manufacturing and sales, wholesale gemstone import and export, as well as data management software and technology development. ICA | GemLab is proud to have an esteemed colleague of his caliber.

DR. SUPHARART SANGSAWONG
CHIEF SCIENTIST

Dr. Supharart Sangsawong holds numerous qualifications in the field of gemology; a Diploma in Theory and Practice of Gemology from the Gemmological Association of Great Britain (GEM-A, a Graduate Gemologist (GG) Diploma from the Gemological Institute of America (GIA), a PhD in Philosophy in Analytical Chemistry from Mahidol University and a BSc in Chemistry from Kasetsart University in Bangkok, Thailand. Dr. Sangsawong served as a Research Scientist at the Gemological Institute of America from 2012 to 2017 before he moved to DANAT.

ATINYA THONGJEEN
FRONT OFFICE MANAGER

Ms. Atinya Thongjeen has over 12 years of experience in customer service and client acquisition for companies that work within the jewelry and gemstone industry. She first began her career in our sector back in 2007 for the Gemological Institute of America (GIA) where she remained employed for 10 years before moving to DANAT, the Bahrain Institute for Pearls and Gemstones as the company's Customer Services Manager. An important role in any company, Ms. Thongjeen's responsibilities include the development and implementation of internal and external procedures related to operations and maintaining close relationships with clients to ensure exact understanding of what the client and the industry as a whole need.

VINCENT PARDIEU

A COLLABORATION WITH ICA | GEMLAB

ICA | GemLab are honored to have come to an understanding with the world-famous field gemologist Vincent Pardieu that allows Vincent to work from our 39th floor premises in Bangkok's Jewelry Trade Center. Giving him a solid base in Bangkok and allowing our team of gemologists to gain immensely both from his presence and the data gained from his immaculately collected library of specimens.

Vincent is a prolific and tireless writer on all things gemological and has made numerous field trips to collect gemstone samples for research which eventually aid in origin determinations and treatment detection. He describes himself, as a friend once described him, as "a Shameless Travel Addicted Gemologist".

He is quoted as stating in a recent interview "I'm a curious human being... Born in South West France. I'm a guy with many interests such as nature, people and traveling. It is for that reason that one day I discovered a passion for gems since gemology is a domain of knowledge touching so many areas from sciences, art, history, geography, languages, trade, etc... Thanks to that I never get bored"

COOKING UP A STORM

WHAT IS IN STORE FOR 2020?

ICA | GemLab is cooking up a storm and 2020 will be a year of exciting, new, and fresh product announcements. In addition to the GemCert application, your laboratory is revamping the traditional gemological reports found within the industry.

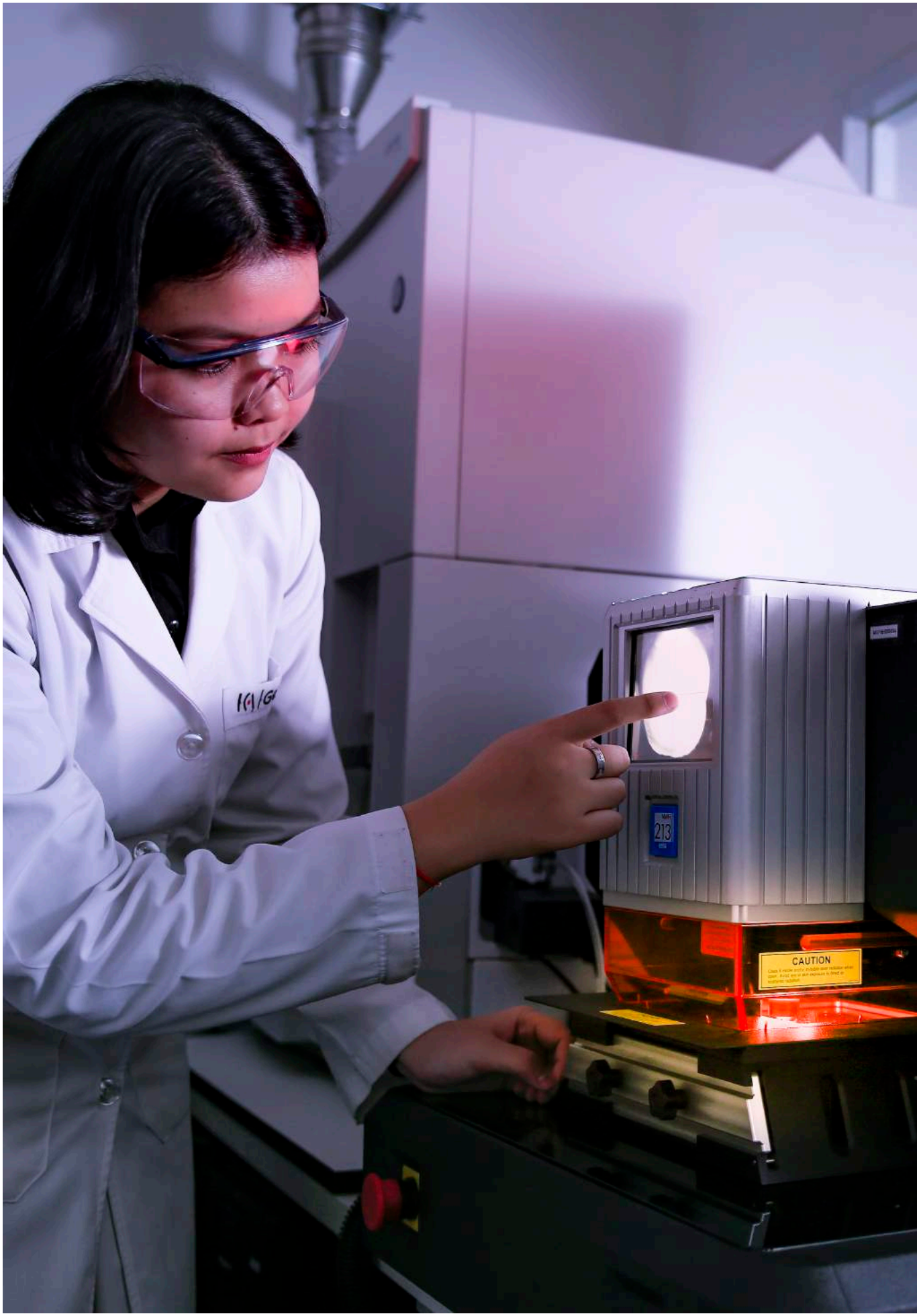
For quite some time, the design and aesthetics of gemological reports have remained the same. They are generally issued in a two-fold format with a small picture of your gemstone on one page next to a page of gemological findings. Sure, what is prevalent is detailed findings on your gemstone's species, characteristics, whether or not it has undergone treatment, and other necessary information but what if there were more pages and more content? Would it not be beneficial to you and your business? Would it not be worth it? More for the same price, a bang for your buck if you will.

A picture is worth a thousand words so let's have more pictures. The characteristics distinctive to each gemstone and the country in which each gemstone has been sourced from, is something that should be shared to the fullest extent. If a gemological report is the piece of document that helps decide the worth of your gemstone and highlights its beauty, then it should be filled with as much information as possible.

Each and every gemstone on the market today has a story of its own. Let ICA | GemLab be the laboratory that brings your stone's story to life.

Stay tuned. Something is coming soon...


GemLab
ETHICAL • TRANSPARENT • RESPONSIBLE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CAUTION

WHY IS LA-ICP-MS IMPORTANT IN MODERN DAY GEMSTONE ANALYSES?

ICA | GemLab is one of just two gem testing facilities in Bangkok that have in-house LA-ICP-MS (Laser Ablation Inductively Coupled Plasma Mass Spectrometry) instrumentation available for day to day use in gemstone analyses.

LA-ICP-MS is an exceedingly powerful analytical technology that enables highly sensitive elemental and isotopic analysis to be performed directly on solid samples (gemstones).

Analyses using LA-ICP-MS gives incredibly accurate ppma/w (parts per million atomic/weight) measurements, with very low detection limits, of all the trace elements present within gems, thereby allowing for clear determinations to be made with regards treatments as well as countries of origin; both extremely important factors in the evaluation of any gemstone.

One question often asked is why do ICA | GemLab use the very costly (in the region of US$400K to purchase the unit) LA-ICP-MS to gain data on the presence or Beryllium in ruby and sapphire when other labs in Bangkok use less costly and easier to operate LIBS (Laser-induced breakdown spectroscopy)? The answer is simple -

> With the LA-ICP-MS in ICA | GemLab the current detection limit for Beryllium is 0.2ppma i.e., any amount above this limit will be detected. Whereas the detection limit for LIBS is generally much higher, in the order of 2 or 3 ppma (this is a rough estimate as LIBS has a spectral output and does not give data in ppma). It is important to understand that as little as 1ppma or less of beryllium diffused into a sapphire can potentially impact the observed (treated) color. But further and much more importantly using the ICA | GemLab LA-ICP-MS we are able to determine whether or not the beryllium present is the result of a treatment process or is naturally occurring in the stone, something that is not possible with the spectral data provided by LIBS.

Another question asked is why we use LA-ICP-MS in ICA | GemLab for the determination of some gemstone origins when EDXRF is also available for use? Again, the answer is simple –

> Within ICA | GemLab's Bangkok facility we have two versions of versatile EDXRF (Energy Dispersive X-ray Fluorescence) units that we use for major and trace elemental analysis and sometimes the data given by these units is sufficient to gain some origin specific data. However, most EDXRF units, while being fast and easy to use, will only give data for sodium (Na) and above in the periodic table which limits its use in terms of some origin determinations, e.g., population plots involving lithium (Li) are not possible and for some other elements detection may also be impaired by EDXRF instrumental detection limits. EDXRF also suffers from poor accuracy, precision and sensitivity when compared with LA-ICP-MS. We have no such impediments with LA-ICP-MS and so if we need to record elements with low or relatively low atomic numbers, or we require greater accuracy, this is the preferred methodology.

To sum up, the in-house LA-ICP-MS (Laser Ablation Inductively Coupled Plasma Mass Spectrometry) instrumentation available for day to day use in gemstone analyses in the ICA | GemLab is an invaluable tool in treatment detection and for origin determination. However, one should add that expertise in its use and the interpretation of results is essential to the process, requiring a special knowledge of solid state chemistry.

IF YOU SEE IT CALL IT

ICA | GEMLAB'S APPROACH TO TREATMENT REPORTING

There was a time in gemological history when the major concern was the determination of whether or not a gem was of natural or synthetic origin. Of course, this concern still exists today, however, on and over the horizon there are a multitude of present and possible gemstone treatments that one needs to be constantly aware of.

The vast majority of today's treatments are designed to impact the color appearance and/or transparency of the gemstone, whether this is by increasing or decreasing the depth of the color or changing it completely by heating, irradiation, coating, dying or fracture filling.

The approaches to treatment declarations today are somewhat split between the pragmatic approach dictated in the CIBJO Coloured Stone Book that rather addresses the difficulties experienced by traders in simply knowing for certain whether a parcel of stones has been treated, and the laboratory approach, which results from a thorough examination of a single stone.

CIBJO requires declaration of all treatments at the point of sale either as a specific or direct declaration, stating as e.g., "Treated", "Artificially irradiated", "Diffusion treated", "Dyed", "Fracture filled" or "Glass filled", "Impregnated", or "Coated", where the treatment is known. Or in general terms for cases, such as, oil or wax in fissures, surface waxing, heating and bleaching, where the trade shall clearly tell their customers which type of treatment a gemstone has undergone.

CIBJO also addresses situations where a gemstone is suspected, without certainty of it being treated, where, and in which cases, they state that it is "prudent and appropriate to disclose a possible treatment, rather than not".

(The Gemstone Books are downloadable at http://www.cibjo.org/introduction-to-the-blue-books/).

For some time now the CIBJO Coloured Stone Commission has been struggling with changing this approach to one that requires all treatments to be specifically declared, however, given the manner in which colored stones are traded this has, thus far, proved to be difficult to achieve.

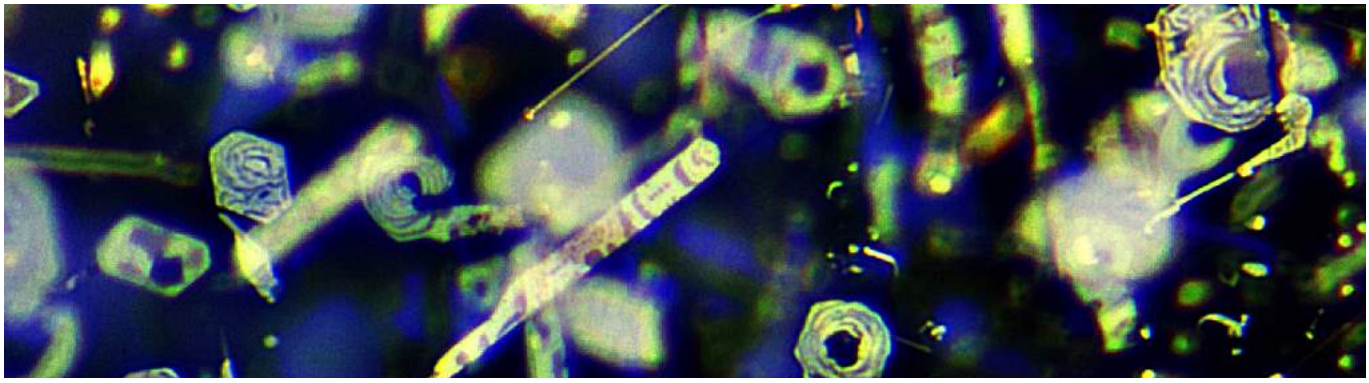
For members of the retail trade in particular CIBJO recently produced a short free downloadable booklet entitled the Do's & Don'ts – a brief guide to responsible trading in diamonds, coloured gemstones, pearls and corals. The booklet is available in 16 languages including Thai.

While it is the task of laboratories to be more specific in their reporting when compared with a normal trading scenario there are challenges in terms of some treatments that are prevalent on the market but have little reliable data to support a determination process. In these challenging cases the members of the Laboratory Manual Harmonisation Committee (LMHC) standardized the report wording to be use to describe cases where colour authenticity is undetermined. These situations typically apply to beryl, demantoid garnet, quartz, spodumene (kunzite), topaz, tourmaline, zircon, zoisite (tanzanite), etc. In such cases the LMHC recommendation is that one of the following wording option apply;

- [Gemstone] is commonly heated and/or irradiated (to improve or change the colour) and/or
- Colour authenticity is currently undeterminable, or
- Colour authenticity has not been determined.

Generally, it is the policy of ICA | GemLab to follow the recommendations of the LMHC where and insofar as LMHC Information Sheets are available but overriding this is the general principle of "if you see it call it" i.e., if ICA | GemLab see clear evidence of a treatment having taken place, regardless of LMHC recommendations, this will be recorded on any resulting report.

A rare natural padparadscha sapphire



WALKING THE TALK

ICA | GemLab is now a proud member of CIBJO the International Jewellery Confederation

ICA | GemLab CEO, Omar Hatta and Managing Partner, Kenneth Scarratt recently attended the annual CIBJO Congress as well as the Pre-Congress Commission Steering Committee Meetings in Bahrain. The various commission meetings and the Congress itself were deemed by all present to be very successful and towards the end, ICA | GemLab submitted its letter of application for membership to the President of CIBJO, Gaetano Cavallieri. Kenneth Scarratt has served on various CIBJO Commissions for several decades and is currently the President of the Pearl Commission and Vice President of the Coral commission and Sector A, as well as serving on the steering committees for the colored stone and gemological commissions.

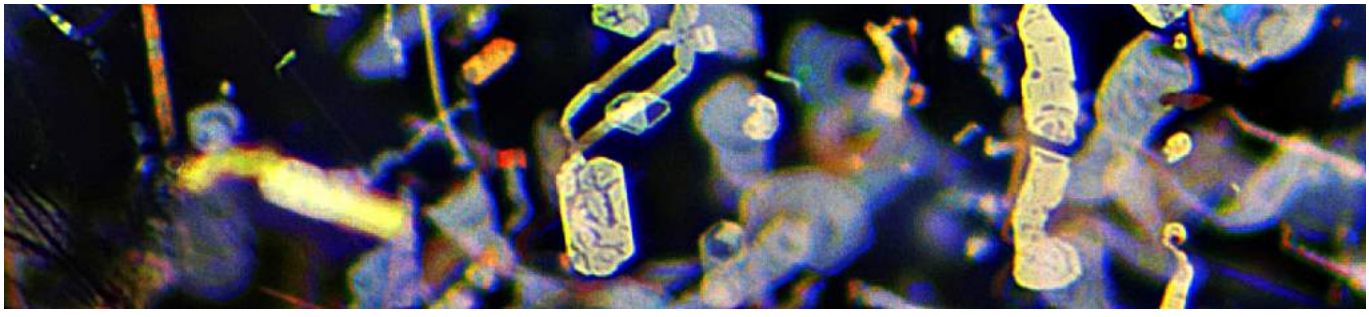
CIBJO is the only industry group that has developed written standards of trading globally through its "Blue Books" [Coloured Stone, Coral, Diamond, Ethics, Gemological, Pearl, Marketing & Education, and Precious Metals] and ICA | GemLab, looks forward to having a global input into the future editions of these fine works and playing its part in developing a sustainable global industry.

Historic note

"CIBJO is the French acronym for the Confédération Internationale de la Bijouterie, Joaillerie, Orfèvrerie, des Diamants, Perles et Pierres, which translates as the International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones (normally shortened to the International Jewellery Confederation). Founded in 1926 as BIBOAH, a European organization whose mission was to represent and advance the interests of the jewelry trade in Europe, it was reorganized in 1961 and renamed CIBJO, in 2009 it was once again reorganized and officially named "CIBJO, The World Jewellery Confederation". Today CIBJO, which is domiciled in Switzerland, is a non-profit confederation of national and international trade associations including commercial organizations involved in the jewelry supply chain. It now has members from countries representing all five continents of the world.

The work of CIBJO is accomplished through Committees, Commissions and Sectors. Committees and Commissions consider standards for use in the jewelry supply chain. Sectors represent levels of trade in the jewelry industry. Sectors and commissions advise the Executive Committee on current trade practices and issues that affect the jewelry industry."

ICA | GemLab is looking forward to closely working with CIBJO to create an industry that is even more ethical, transparent, and responsible.



THROUGH THE MICROSCOPE

INTERVIEW WITH ICA | GEMLAB PHOTOMICROGRAPHER MUZDAREEFAH THUDSANAPBUNYA (JAYDA)

What attracted you towards photomicrography?
While reading gemological journals, publications and magazines, I've seen an abundance of inclusions from various types of gemstones from different gemstone deposits around the world. Every gemstone has a unique inclusion pattern and its beauty is appealing. This has inspired me to the world of photomicrography.

How long have you been taking photomicrography images?
I have been taking professional photomicrography images for 1 year now, but my first time was 7 years ago. I was working on a senior research project that studied the difference between inclusions before and after they have undergone heat treatment. Photomicrography at the time was still new to me so I did not know much about techniques involved. Nevertheless, it was the stepping stone to what I'm doing now.

Why do you love photomicrography?
Photomicrography brings me to the microworld – a unique and wonderful world invisible to the naked eye. During photography sessions, my mind is calm and I am focused on the task at hand. It does get challenging at times because a lot of technique and skills are required to capture a nice photo. This is why I am glad that people appreciate my work and look forward to new photos that I produce. To me, photomicrography is about sharing the beauty of gemstones and gemology from my point of view. This is why I love photomicrography.

What type of inclusion scenes do you love best?
Iridescent-Interference colors inclusions such as Rosette, Iridescent needles, platelets and thin film-like inclusions.

What is your favorite gemstone?
My favorite gemstone is sapphire because of the many colors they are found in. There are also various types of inclusions such as multiphase inclusions, iridescent rutile needles and platelets and healed fissures which display an interference color. As each origin has different inclusions, I find sapphires interesting to work with. You never now what you will see when they are placed under the microscope.

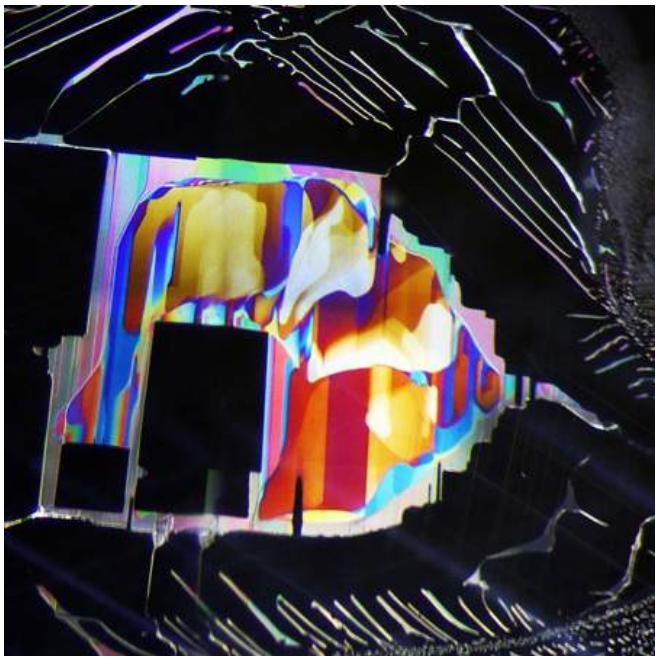


Figure 1 : Partially healed fissure displaying interference colors in an unheated sapphire from Sri Lanka - oblique fiber optic illumination, field of view 1.95 mm. Photo by Muzdareefah Thudsanapbunya (Jayda) ICA | GemLab.

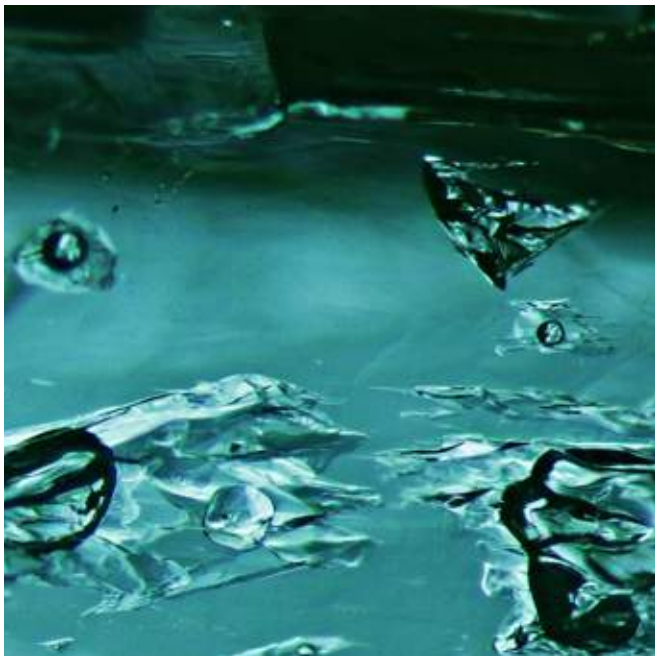


Figure 2: Multiphase inclusions in an emerald from Nigeria - dark field illumination, field of view 1.55 mm. Photo by Muzdareefah Thudsanapbunya (Jayda) ICA | GemLab.

Figure 3 : Thin film-like, reflective-iridescent, partially healed fissure ("rosette") in ruby from Thailand/Cambodia is shown using oblique fiber optics illumination. field of view 1.55 mm. Photo by Muzdareefah Thudsanapbunya (Jayda) ICA | GemLab.

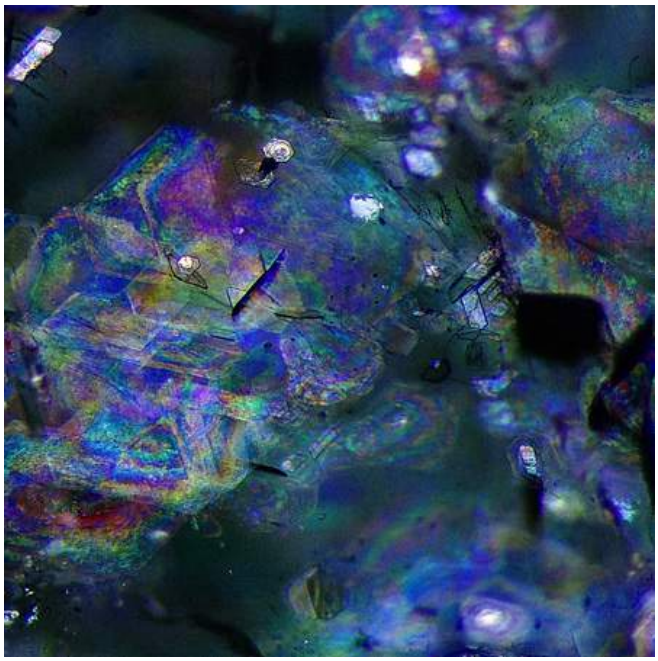


Figure 4: Iridescent thin film-like inclusions in an emerald from Zambia seen here using oblique fiber optic illumination, field of view 1.95 mm. Photo by Muzdareefah Thudsanapbunya (Jayda) ICA | GemLab.

FURTHER NOTES TO INCLUSION IMAGING

FIGURE 1

This partially healed fissure displays a city map-like aspect which is often observed as an internal feature in Sri Lankan Sapphire. The interference colors were gained by using oblique fiber optic Illumination. The pattern of this healed fissure is parallel to the c-axis (Hughes R., 2016).

FIGURE 2

Three-phase inclusions can be found in emeralds from a number of different localities, including Colombia, Zambia, Afghanistan, and China (Saeseaw S., 2014) This emerald from Nigeria reveals several multiphase inclusions displaying small crystals and a large gas bubble within.

FIGURE 3

"Siamese Rubies" are found on the borders of Thailand and Cambodia and while quite famous they are now scarce in the gem markets. One of the typical inclusions recorded in "Siamese Rubies" is often described known as a "rosette"; which is a partially healed internal fissure which appears iridescent in fiber optic or reflective illumination.

FIGURE 4

Today Zambia is one of the most significant origins for emerald (Zwaan et al., 2005) and multiphase inclusions, mineral inclusions such as amphibole, pyrolusite and mica are found in these fine emeralds. In one study of the interior of an emerald from Zambia the iridescent thin film-like inclusions seen in Figure 4 that display bizarre patterns were observed when using fiber optic illumination.

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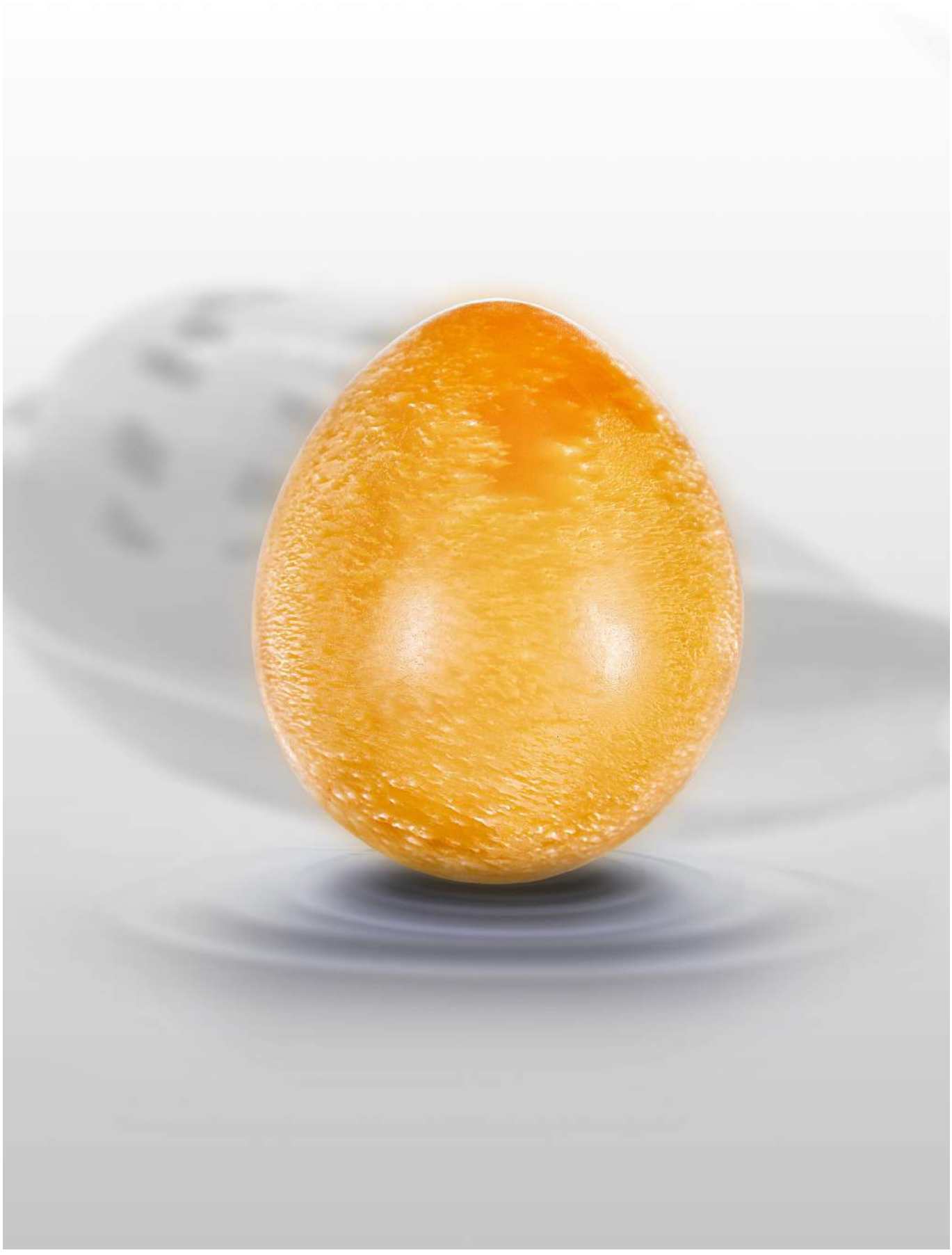

MELO PEARL

While Melo pearls can be discovered within one of the Melo volutes (usually *Melo aethiopica*, *Melo amphora*, or *Melo broderipii*) that inhabit the oceans and waters off the coasts of Australia and the Philippines, most have discovered off the coasts of Vietnam, Thailand, Malaysia and Myanmar (Burma) within the variety *Melo melo.*

Melo pearls are nevertheless rare, beautiful and very distinctive natural pearls that have captured the imaginations of collectors, gem merchants' and jewelry designers and with prices reaching extraordinary heights for the finest quality (a 224.30 cts example selling at the Christies 2010 sale for US$722,500 (Christies, 2010)) they have also captured the interests of discerning private buyers.

Recently, ICA | GemLab were privileged to receive a near perfect 63.91 cts drop shaped Melo pearl for examination and subsequent issuance of an identification report. This gem measured 19.49 x 19.66 x 23.16 mm, and was perfectly natural in every sense.

One of the truly intriguing features of pearls from the Melo volutes is their fascinating surface structures which resemble 'shooting flames' from an open fire (Chen, 2003; Scarratt, 1992; Sciaguato, 2004; Traub, 1997) or as has been described in the book the Pearl and the Dragon (Traub, Zucker, Content, & Scarratt, 1999) as relating to the firey flames being emitted from the dragon images seen on Vietnamese blue porcelain (see Figure 1).

Figure 1: The surface "flame" structure recorded for the a 63.91 cts Melo pearl submitted to ICA | GemLab for an identification report. Image by Muzdareefah Thudsanapbunya (Jayda).

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THE IMPERIAL STATE CROWN

Figure 1: The Imperial State Crown photographed here in Long wave ultraviolet light. Note that the ruby set atop of the Black Prince's 'ruby' fluoresces a strong red and the St Edwards sapphire fluoresces a somewhat weaker red. Note also that the Cullinan II diamond is inert to long wave ultraviolet.

Figure 2: The Stuart Sapphire normally positioned at the rear of the Imperial State Crown, seen here free of the crown but still in its individual setting.

Figure 3: (*Left*) St. Edward's Sapphire seen here free of the crown and at the center of the cross that normally sits above the monde at the apex of the crown. (*Right*) The famous "Black Prince's Ruby", a natural spinel normally positioned in the front of the Imperial State Crown, seen here free of the crown but still in its rub-over setting. The cabochon inserted at the top is a natural ruby from Burma. Note the 'ropy' drill hole.

The Imperial State Crown along with all the other Crown Jewels were examined in the 1980's by our managing partner, Kenneth Scarratt, including several historically important colored gemstones.

The Stuart Sapphire, a near oval blue gem set in the band at the rear (opposite the Cullinan II) measuring 43.5 x 28.6 mm, the thickness is less than 12.4 mm. In a rub-over mounting, it is drilled from the narrower end and this extends 19.3 mm into the gem. It's estimated weight is 104 cts. The gem is inert to UV radiation and the inclusions are recorded as being silk of variable fineness.

St. Edward's Sapphire occupies the center of the cross above the monde at the apex of the crown, and is an octagonal gem measuring 16.1 x 15.3 x 12.4 mm. It contains elongated areas of silk and fluoresces reddish in long wave ultraviolet radiation.

And likely the most famous of the colored stones, the Black Prince's "Ruby". The name being historic terminology as the stone is essentially a large polished crystal of spinel with three of the faces displaying the typical crystal habit of this wonderful gem. The spinel measures 43.3 x 33.8 x 20.1 mm and is penetrated by four drill holes, the first runs the length of the stone in an irregular ropy fashion with a diameter varying between 2 and 3 mm. The color of the spinel is a fine orangey red. Set partially in the main drill hole with the pin running through two of the others and seen at the top of the spinel, as it is set in the crown, is a fine Burmese ruby cabochon.

It is interesting to note the difference in the long wave ultraviolet fluorescence recorded for the spinel, St Edward's sapphire and the ruby cabochon.

The Cullinan II Diamond, or the Second Star of Africa is set in the front of the crown and below the Black Prince's "Ruby", weighs 317.40 cts and is the second largest stone cut from the famous Cullinan diamond rough that weighed 3,106 cts. The diamond appears to be free of internal imperfections, is a 'D' color and is a type II diamond.

THE GALA

On the night of October 15, 2019, our laboratory marked its grand opening at The GALA. The beauty of colored gemstones was celebrated with a gem-inspired art installation, a jewelry fashion show and a delicious Michelin-star meal.


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ICA | GEMLAB GRAND OPENING GALA

Over 600 individuals ranging from CEOs buyers, brokers and designers that work closely within the jewelry and gemstone industry gathered at the AVANI+ Riverside Hotel for our event. An event of this magnitude was an outstanding networking platform for all those involved in our industry to meet and establish new connections.

The gorgeous dresses featured in the fashion show designed by the famous Milin Yuvacharuskul herself – founder and creative director of MILIN – was auctioned off in a silent auction event organized by ICA | GemLab. Alongside the fashion dresses that were auctioned was a one-of-a-kind 13-carat Colombian Emerald Ring from the private collection of ICA | GemLab's CEO Mr. Omar Hatta. Funds raised from the auctions went to the Gems Keep Giving Foundation, a charity set up by the International Colored Gemstone Association (ICA) to support artisanal gemstone mining and cutting communities around the globe.

We would like to thank everyone who attended the event to support our endeavors and all our clients who have been loyal to us for the past 2 years. Thank you for trusting us with your precious goods and we look forward to producing high quality, accurate, ethical and fully transparent reporting services for you and your business in the near future.

GEMS KEEP GIVING

'Gems Keep Giving' (GKG) is a foundation set up by the International Colored Gemstone Association (ICA) to support artisinal gemstone mining and cutting communities around the globe. As the name implies, those involved in the gemstone industry now have a way of giving back to those who are most in need. By giving we are not only changing lives for the better but we are also helping to make our industry more sustainable.

The vast majority of colored gemstones in the marketplace are produced by small artisinal miners and cutters, many of whom work and live under difficult circumstances. It is incumbent upon our gem and jewellery industry to support these people and their families to help them prosper and grow in a safe, sustainable and inclusive environment.

ICA is made up of around 700 members around the globe involved in all aspects of the colored gem industry including mining, cutting, manufacture, gemological research, education, marketing, design and retailing. ICA's reach and influence enables it to identify areas in need of assistance and to provide and co-ordinate resources necessary to help make positive and meaningful change to communities. We want to make a difference by providing timely and effective assistance which will focus on these key areas of concern: safety, human rights, fair work, inclusiveness, environmental impact, resource sustainability and community amenity. We can all play our part, whether it be a donation, an endowment, a fund-raising effort, identification of a community project, or providing hands-on aid and assistance.
Gem Keeps Giving warmly welcomes assistance from socially conscious corporate sponsors, foundations and donors who will see that through the GKG fund their generosity can really make a difference to the lives and communities of some of the less fortunate people in our gemstone community. To make a contribution, please send a message to info@icagemlab.com

CARBON NEUTRAL

The relationship between climate change and greenhouse gasses is a scientific certainty. To combat this phenomenon, various organizations around the world have come up with a solution: carbon neutrality.

Carbon neutrality is a concept that seeks to reduce the negative impact of human activity by achieving a net result of zero emissions. There are a few ways to achieve this. The first would be mitigation, the decreased dependence on carbon emitting technology. Second, because it is still impossible for some industries to produce zero emissions, we instead offset greenhouse gasses through global initiatives that encourage renewable energy and reduce carbon byproducts in the atmosphere.

The gems and jewelry trade is an industry that profits from the bounties of the Earth, but it is also one that has, for years, contributed to big greenhouse emissions. The biggest impact the jewelry industry has is from carbon dioxide (CO_2) emissions generated through mining, minerals processing, and manufacturing. We also see a negative environmental impact from the clearing of hectares of land to access valuable gemstones, and precious metals like gold, platinum and silver.

It is imperative that an industry which gains from the land should protect it as well. Since 2013, CIBJO, as a center of knowledge, a decision-making body, and an advocate for the well-being of the jewelry industry worldwide, began initiatives to achieve carbon neutrality in the jewelry industry.
In 2014, CIBJO set up the Jewellery Industry Measurement Initiative at the initiative of its Marketing & Education Commission. The initiative helps companies within the jewelry and gemstone industry understand their environmental impact and reduce it. This protects the industry as a whole and creates an environmentally sustainable trade for everyone.

ICA | GemLab, with a commitment to ethical, transparent, and responsible trade, is helping the industry move towards carbon neutrality by providing a paperless solution for gemological certification. A reliance on paper increases greenhouse gasses through its production, storage, and transportation. Aside from this, most of the paper used today entails bleaching the paper with chlorine compounds. This results in paper mills emitting many toxic chemicals that, once released, do not go away and proceed to cause environmental and health issues.

As a CIBJO member, ICA | GemLab supports the Jewellery Industry Measurement Initiative and every effort towards carbon neutrality. We believe in an industry which is ethical, one that looks towards the wellbeing of our environment; transparent, one that works together with global initiatives to track and reduce our negative impacts; and an industry which is responsible towards every stakeholder.

GEMCERT

The accelerating impact of technology and new market demands are no doubt a challenge to all businesses, regardless of the industry. We are living in an age where technology is seeping into all aspects of life, and in the business world, technology is being deployed to reduce management time and cost, make better products, and offer better service. Disruptive technologies and the "next big thing" are eagerly awaiting by many companies, but it takes a great deal of knowledge and skill to implement. Few are equipped to do this as it isn't an easy task.

James McQuivey, the world's leading analyst tracking digital disruption and its development once stated that "When people adopt technology, they do old things in new ways. When people internalize technology, they find new things to do". ICA | GemLab is doing exactly that and is looking to the tech industry for their expertise to help lead all those in the jewelry and gemstone industry to the digital age. New, innovative things will be available for the entire sector, starting with the GemCert application.

The 'GemCert' smart mobile application will be a revolutionary software product that makes life easier for people involved in the jewelry sector. It will feature an interactive gemological report, inventory and showroom management, educational database, and a platform for lead acquisition. This game changing application will provide the industry with an avenue to grow and fully evolve into the digital age.

At the core of GemCert is the digital report (E-cert). Unlike typical gemological reports from other gemological laboratories, ICA | GemLab will shift to issuing paperless, digital reports via the GemCert application. These reports will highlight the beauty of that specific gemstone and its many characteristics in an interactive way. You will be able to view a 360 degree, 3-D image of your gemstone alongside technological findings provided following ICA | GemLab's testing. Swiping to a different menu or tab will showcase the unique inclusions of your gemstone in high definition or other relevant information in depth such as the color wheel, dimensions, cut/shape and origin. It will feel like reading an encyclopedia on the stone you have submitted.

A free educational database can also be accessed by anyone who has downloaded GemCert. You will have the opportunity to learn about numerous gemstones and their deposits and origins, market and trade, associated mythologies and zodiacs, as well as the basics of gemology with an entire section dedicated to gemological information such as advanced instruments and inclusions. We strive to educate the general public by creating a platform where gemological content can be digested - minus the abundance of technical terminology.

Aside from the many features available in our GemCert application, something we believe is extremely valuable and beneficial to the industry is our API system. An API (Application Program Interface) is a set of routines and protocols used in building and creating software applications that specifies how various software components should interact. To put into simple terms, the API makes our dashboard system applicable to the business' of all users - giving you an overview of your inventory, enabling you to efficiently manage your goods.

GemCert is more than just an application. It will serve as a doorway for new comers interested in gemology who want to eventually work in the jewelry and gemstone industry while serving to assist those already in the industry.


9:41 AM
Back
SHOWROOM
Date: 15/05/2019
No: 493852346703
Item: One faceted gemstone
GemCert
ORICIN


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SAGITTARIUS TURQUOISE

NOVEMBER 22 - DECEMBER 21

Found in dry and barren regions, turquoise is a colored gemstone prized for its soothing color and long history. The color range of turquoise can range from dull green and bluish green to blue, with the sky blue or "Robin's Egg Blue" color as the most desirable. Native American peoples hold the vgemstone in high esteem as it has a significant place in their culture. They are frequently fashioned into talismans and jewelry pieces for spiritual reasons as the stone is soft and ideal for carving.

As sagittarius individuals have a tendency to be impatient and impulsive, they can easily absorb negativity into their lives. The birthstone of December, Turquoise can enhance the lives of the Sagittarius by bringing in happiness, good fortune, and prosperity. Its blue colors represent the blue of the ocean and the sky and can offer clarity to the mind.

CAPRICORN GARNET

DECEMBER 22 - JANUARY 20

Some gemstones can be found in red, some can be found in blue, and others can display multiple colors in one stones. Garnets on the other hand, can be found in almost every single color. These unique gemstones found all over the world are so popular that certain species have been adopted as state gemstones for four separate states in the United States of America! The state gemstone of New York is garnet, Connecticut has almandine garnet, Idaho has star garnet and Vermont has grossular garnet.

Garnets are the birthstone for those born in January as well as the gemstone for the astrological sign of Capricorn. Garnets symbolize purity, truth, faithfulness, friendship, commitment and regeneration. Just as the appearance of garnets can change under different light sources, capricorns are known to change his/her behavior to get what they want. Capricorns donning the garnet may have success come their way.

EVENTS & EXHIBITIONS

ICA GEMOLOGICAL LABORATORY

2019 - 2020

January 30th 2019

AGTA GemFair™ Tuscon 2019

February 20th 2019

Bangkok Gems and Jewelry Fair

May 31st 2019

JCK Las Vegas Gems and Jewellery Exhibition

June 20th 2019

Hong Kong Jewellery & Gem Fair

September 6th 2019

Vicenzaoro Italy

September 10th 2019

Bangkok Gems and Jewelry Fair

September 16th 2019

Hong Kong Jewellry & Gem Fair

October 12th 2019

ICA Congress 2019

October 15th 2019

ICA | GemLab Grand Opening “The GALA”

November 16th 2019

CIBJO Congress 2019

December 4th 2019

International Chanthaburi
Gems & Jewelry Festival 2019

February 4th 2020

AGTA GemFair™ Tuscon 2020

February 25th 2020

Bangkok Gems and Jewelry Fair

June 25th 2020

Hong Kong Jewellery & Gem Fair

August 29th 2020

Facets Sri Lanka August 2020

September 2020

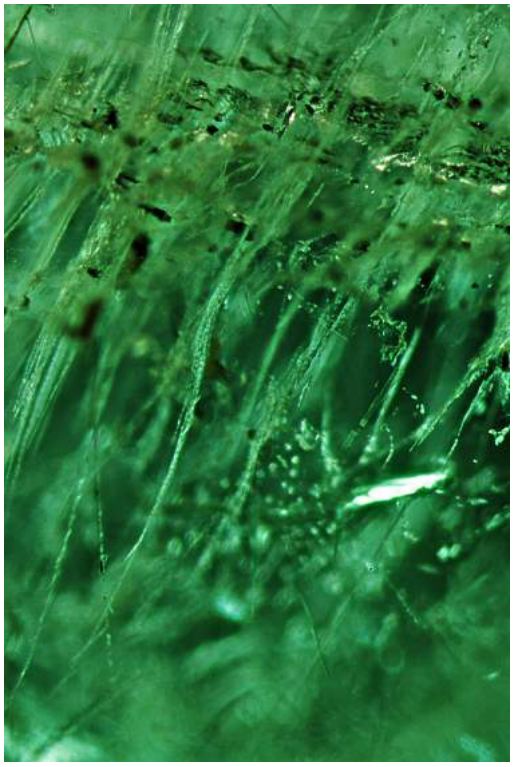
Bangkok Gems and Jewelry Fair

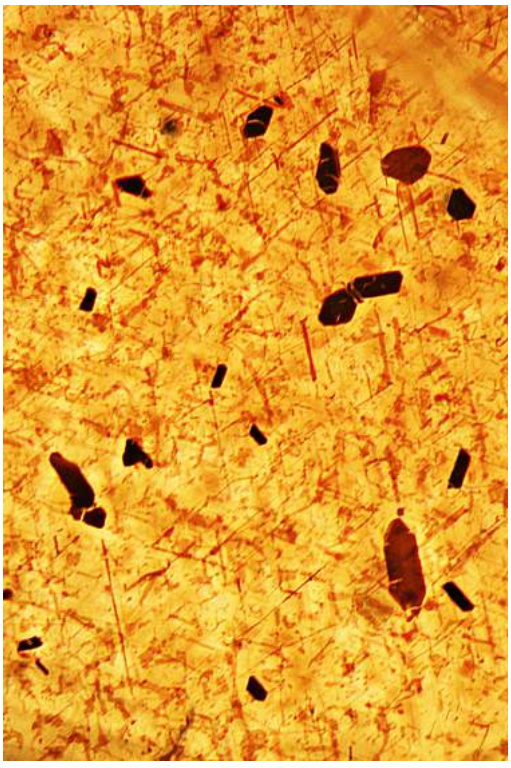
September 13th 2020

Hong Kong Jewellery & Gem Fair

September 20th 2020

20th ICA Congress Shenzhen, China



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GemLab

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cibjo