

Gems & Jewellery

March/April 2015 / Volume 24 / No. 2

Tucson 2015

Treasures of the Salsigne Mine

Hands-on look at diamond inclusions



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THE GEMMOLOGICAL ASSOCIATION
OF GREAT BRITAIN



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Understanding Gems

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Cover Picture

Distorted crystal group in a light brown diamond by Grenville Millington FGA. The diamond is approximately 2.8 mm across. See Grenville's article on crystal inclusions on page 22.

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Gem-A

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Get closer to the source 13 – 20 June 2015

Gem-A will once again get closer to the source in **Idar-Oberstein**. This trip of a lifetime includes visits to **Edelsteinminen Steinkaulenberg, Kupferbergwerk in Fischbach, DGemG, Schneider gem tools, Deutsches Mineralienmuseum** and **Historische Weiherschleife**, as well as the chance to sample the very best of German small-town culture. For more information or to secure your place contact events@gem-a.com.

Understanding Gems

Join us.



It's not all the life of Riley...

As I write this from my sick bed (don't worry folks, its nothing too serious and I'll be back in action soon — I can hear the groans from here!), I never cease to be amazed by the camaraderie and friendship in our trade. It's true we have our fair share of jealousy, gossip, duplicity and, of course, downright dishonesty — every business has these — but I think we are unique in the love and enjoyment that most of us derive from gems.

The recent Tucson show demonstrated this — see Gary Roskin's review on page 10 and Eric Fritz's 'alternative editorial' on page 19 — and, for those of you that saw us there or visited one of the other many shows that we exhibit at, you will know that we are delighted to meet members and students at all times and to receive your input and feedback.

As I write, the show is already underway in Hong Kong, which we will cover in the next issue. Shortly after you receive this issue the shows in Basel and Freiburg will be underway. The international juggernaut rolls on with a round of international conferences with the Gemmological Association of Australia's (GAA) conference in Melbourne at the end of the month, while in April there's the Mallorcan GemQuest, the Swiss Gemmological Conference and the AGS Conclave, and in May the Scottish Gemmological Association's (SGA) Conference, CIBJO Congress in Brazil and the ICA Congress in Sri Lanka — not to mention the JCK Show in Las Vegas.

Those of you in the UK might wonder why we attend these events and what their relevance is. Even though we are the Gemmological Association of Great Britain we have always had a truly international spread of students, going all the way back to Robert Shipley in the 1920s and Eduard Gübelin in the 1930s. These events provide an opportunity for new individuals to experience the Association we all know and love, and for you, our members and students, to provide valuable feedback, criticism and ideas to our team, to enable us to make the courses and Association even better. If you have any views feel free to contact me or the board directly.

Finally I would like to thank you all for the kind messages that I have received following the birth of my daughter Elizabeth and during my recent illness. It's true that in these times you find out who your friends are, and some appear from unexpected quarters. Thank you everyone. I'm sure you will also join me in sending our best wishes and congratulations to Lorne Stather, our director of education, and her partner Chris Williamson, on the birth of their daughter Olivia.

I hope to see many of you in the near future.



James Riley
Chief Executive Officer



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Gem-A events

SHOWS

BaselWorld 2015

19–26 March

Stand A35, MCH Swiss Exhibition, Basel, Switzerland



One of the largest watch and jewellery shows, BaselWorld is the focal point of the industry, where all key players showcase their creations and innovations. The show attracts everyone from designers and purchasers, to the global press and consumers. The Gem-A team will be on hand to answer your questions.

The Diamond Show

19–20 and 22–23 March

Markthalle Basel, Basel, Switzerland

Gem-A will be joining the world's only exhibition dedicated to diamonds and diamond jewellery and the destination for diamond buyers during Basel watch and jewellery week. As official sponsors of the event, Gem-A will exhibit in a special area reserved for Diamond Show sponsors alongside some of the world's most well-known businesses dealing in all things diamonds.

Jewellery & Gem Fair

22–25 March

Booth 4A22, Freiburg, Germany

Jewellery & Gem Fair Europe will present a wide range of finished jewellery, gemstones, diamonds, pearls, tools and equipment from over 400 international exhibitors. Come and visit the Gem-A team at Booth 4A22.

JCK Las Vegas

29 May–1 June

Booth L116, Mandalay Bay Resort & Casino, Las Vegas, Nevada, USA

One of the most anticipated shows of the year, Gem-A returns to The Entertainment Capital of the World. This year's show will feature a host of networking events, complimentary education sessions and a fine selection of finished jewellery and gems. Be sure to visit the Gem-A Booth, number L116.



OTHER EVENTS

Mallorca GemQuest

18–20 April

El Cid Hotel, Can Pastilla, Playa de Palma, Mallorca

GemQuest is an annual gemmological conference held on the beautiful island of Mallorca, aimed at promoting the science of gemmology. Co-sponsored by *The Handbook of Gemmology* and Gem-A, GemQuest is your opportunity to listen to world class speakers and meet and network with fellow gem enthusiasts and professionals. Gem-A CEO James Riley FGA DGA will be delivering two presentations at GemQuest on Burma and the History of Gemmology. For more information or to book visit: www.mallorcagemquest.com/home.html.

Swiss Gemmological Society Conference

19–21 April

Meisterschwanden, Switzerland

For more information contact: info@gemmologie.ch.

American Gem Society (AGS) Conclave 2015

22–25 April

New Orleans Marriott, New Orleans, Louisiana, USA

Gem-A will be joining members of the American Gem Society (AGS) for its annual conference, AGS Conclave. Gem-A will take part in this celebration of all things gemmological, and will be on-hand to discuss education, membership, publications and Gem-A Instruments. To book visit: www.americangemsociety.org/conclave-2015-registration.

Scottish Gemmological Association (SGA) Conference*1–4 May**Hydro Hotel, Innerleithen Road, Peebles*

The renowned SGA Conference is back for another year, with speakers including: Dr Keith Barron, president and CEO of Aurania Resources; Clare Blatherwick FGA DGA, head of Silver and Jewellery Department at Bonhams, Edinburgh; Dominic Mok FGA DGA FGAA, Asian Gemmological Institute and Laboratory; Stuart Robertson GG, research director, Gemworld International; Richard Welander, head of collections, Historic Scotland; Prof. Emmanuel Fritsch FGA, Nantes University, France; Alan Hodgkinson FGA, president of the Scottish Gemmological Association; Dr Cigdem Lule GG FGA, special projects manager, Gemworld International, as well as Gem-A's very own Claire Mitchell FGA DGA, and David Callaghan FGA, a vice president of Gem-A. To book visit: www.scotgem.co.uk/SGAConference2015/Registration_early.htm.

CIBJO Congress*4–6 May**Salvador, Brazil*

Salvador, the capital of the north-eastern Brazilian state of Bahia, will welcome delegates from around the world to the 2015 CIBJO Congress. The main venue for the event is the Sheraton da Bahia Hotel, in the heart of the city's downtown area. In addition to the Congress tours of Salvador are offered. For more information visit: <http://congress2015.cibjo.org/>.

GEM-A WORKSHOPS

Workshops are UK-based and cost £120 for Members and £150 for Non-Members. To book please contact events@gem-a.com

Understanding diamond simulants*Friday 20 March, Gem-A Headquarters, London*

An important practical workshop for those working or considering working in the diamond market; you will learn the key differences between diamond and its simulants, and how to recognize them both as loose stones, and in set or mounted jewellery. Using basic observation techniques and readily available instruments, such as diamond and combination testers, participants will be taught to quickly and effectively separate diamonds from all other imitations, thus preventing costly purchasing errors, and allowing informed buying decisions to be made. Participants will be provided with the necessary equipment, and may, if they wish, bring along their own samples, by prior arrangement, and at their own risk.

ICA Congress*16–19 May**Colombo, Sri Lanka*

The ICA Congress promises delights such as the Facets gem show, street parties, tours of mines, live entertainment, tennis, golf and cricket tournaments — not to mention the Congress itself, featuring world-renowned speakers on a variety of gem trade-related topics. Visit: <http://congress.gemstone.org> for more information.

Idar-Oberstein Field Trip 2015*13–20 June**Idar-Oberstein, Germany*

Following on from the outstanding success of the visit to Idar-Oberstein in June 2014, Gem-A, in collaboration with Deborah Mazza FGA, has organized another fantastic trip to the centre of the lapidary world. Gem-A will take you 'closer to the source', allowing you a unique opportunity to visit the Edelsteinminen Steinkaulenberg, Kupferbergwerk in Fischbach, DGemG, Schneider gem tools, Deutsches Mineralienmuseum and Historische Weiherschleife, whilst also getting the chance to sample the very best of German small-town culture, with a chance to visit various lapidaries and gem workshops. To book contact: events@gem-a.com. ■

Gem News

The latest stories
from around the trade

NEW TRADE BODY FOR SYNTHETIC DIAMONDS?

In a move that many in the industry will regard as long overdue, gem-quality synthetic diamond producers have come together to form their own trade body. The International Grown Diamond Association (IGDA) describes itself as a 'not-for-profit organization that will seek to represent and promote the grown diamond industry and work towards creating awareness about grown diamonds'.

The IGDA was founded in Singapore and aims to serve as the central point of communication for the industry and global platform to discuss all issues concerning the industry and its stakeholders. However, the development is not as straightforward as it might at first seem. In an investigative report on the new association, written last month by Chaim Even-Zohar for IDEX Online, IGDA throws up more questions than it answers.

The first concerns the launch of the association, which has not been made official; no sooner was its website discovered than it was closed down. "The Ila Technology computer experts have made the website invisible for either Google search engines or Google archives. For a genuine and legitimate non-profit trade association, it seems like an odd step," says Even-Zohar.

However, the journalist was able to establish that the founder behind IGDA is Vishal Mehta, the CEO of Ila Technologies, a leading grown diamond technology company. He is also the son of Jatin Mehta of India's Winsome Diamonds, currently under investigation in India for default on loans from 15 banks. The 'other' founding members, Even-Zohar points out, are all, in some way, connected to Ila Technologies or Jatin Mehta.

The website cites a 'Code of Ethics and Fair Business Practices' for its members, one of which prohibits the term 'synthetic' with respect to grown diamonds, it being 'technically incorrect and misleading to the consumer'. However, as Even-Zohar reminds, this particular ruling flies in the face of the United States Federal Trade Commission's own rules when it comes to the describing of 'lab-grown' or 'lab-created' diamonds.

To date the journalist, who has followed the website for many months, is unaware of any synthetic diamond producer who has joined the association; thus far it is dominated by Ila Technologies. Watch this space.

UNDISCLOSED LAB-GROWN DIAMONDS DISCOVERED

Around 110 undisclosed lab-grown diamonds, each weighing 1.28 ct, turned up in the Gujarati manufacturing city of Surat last month. The Surat Diamond Association (SDA) detected the synthetic stones from a packet belonging to two market traders operating from the Mini Bazaar diamond market in Varachha.



SOTHEBYS AUCTIONS RARE DIAMOND

A 100.20-ct, D colour, internally flawless emerald-cut diamond is to be offered by Sotheby's at its auction in New York City on 21 April 2015. The diamond is the largest D, IF emerald-cut stone ever presented at auction. Estimated at \$19 million to \$25 million, the diamond, which Sotheby's is describing as the 'Ultimate Emerald-Cut Diamond', was unveiled at a photo call in London last month.

The rough from which it was cut weighed over 200 ct and was mined in southern Africa by De Beers. The owner spent over a year cutting and polishing the diamond to perfection.

Lisa Hubbard, the chairman of North and South America for Sotheby's International Jewelry Division, described the diamond as "the rarest object of natural beauty on the market right now; this 100-carat diamond could be considered the ultimate asset".

Two D, flawless diamonds over 100 ct were sold at auction during 2013; one reached \$262,830 per ct and the other sold for \$258,708 per ct. The Ultimate Emerald-Cut Diamond will be exhibited in Dubai from 16-18 March; Los Angeles on 29 March; Hong Kong from 2-5 April; London from 8-12 April; Doha from 14-15 April and New York from 17-21 April.

Tests conducted by SDA determined that the stones were synthetic. They were purchased in Bhavnagar, where they were also cut and polished. According to SDA president Dinesh Navadia, the matter has been taken up by the Natural Diamond Monitoring Committee, set up by the Gems and Jewellery Export Promotion Council (GJEPC) for 'thorough investigation'.

The discovery came not long after the SDA and the GJEPC organized a seminar in Surat to spread awareness about lab-grown diamond detection techniques to the city's diamond manufacturers and traders.

However, as IDEX Online's story on the lab-grown diamonds points out, the discovery should come as no surprise. Last month, reports came of messages circulating on social media about several leading Indian diamond companies said to be involved in mixing lab-grown and natural diamonds. In response to those rumours, the GJEPC and SDA issued a joint statement warning of legal action against those caught selling undisclosed mixed diamonds in the market.

SSEF OPENS NEW LAB IN BASEL

The Swiss Gemmological Institute (SSEF), one of the world's most respected gem research, education and grading institutions, has inaugurated a state-of-the-art laboratory in Basel, more than doubling the size of its previous facility and enabling a massive expansion of the services it has provided the gemstone, jewellery and watch industries for more than 40 years.

The 720 square-metre new home is a major upgrade from the 300-square metre laboratory that the organization occupied since 1994. Customised to facilitate the growth of SSEF's diamond, coloured gemstone and pearl grading and testing divisions, it is also designed to keep the organisation at the forefront of gemmological research, while at the same time expanding the educational services it provides for the Swiss, European and international gem communities.

FIRST MED CONFERENCE FOR AIJV

The Association of Independent Valuers has announced that it will hold a series of annual Mediterranean conferences, the first being held in Athens, Greece on 27-28 June, 2015.

Lectures will be offered by leading independent laboratory gemmologists, valuers and synthesis experts, on a broad range of subjects, but especially those that are of concern to jewellery valuers,

jewellers and gem dealers. Topics up for discussion in Greece will include Argyle coloured diamonds, the testing and identification of large and melee synthetic diamonds and pearls and coloured treatment and values of coloured gemstones.

Speakers at the event are: Dr. Thomas Hainschwang (Liechtenstein), Francesca Peretti (Switzerland), Branko Deljanin (Canada), Wolf Kuehn (Canada), Gail Brett Levine (USA), Fazil Ozen (Turkey), Kym Hughes (Australia) and Dr Joe C.C. Yuan (Taiwan).

The conference has been organized by Independent Gemological Laboratory, Greece and CGL — Swiss Canadian Gem Lab Inc., Canada, in cooperation with Association of Independent Jewellery Valuers, UK, and National Association of Jewelry Appraisers, USA. For further information and registration: <https://gemconference.com/>

EGL REVOKES ISRAEL LAB LICENCE

The holders of the worldwide rights of EGL have notified the members of the Israel Diamond Exchange and all members of the diamond industry and trade that the licence agreement with the gemmological laboratory operated by Guy Benhamou (a former EGL laboratory that also uses the name EGL International), located in the Noam building in Ramat Gan, has been revoked and cancelled.

Upon termination of the licence, as of 25 November 2014, this lab is not authorized to issue certificates bearing the EGL trademark in any form whatsoever and/or represent the EGL brand. The press release, issued last month, also states that any certificate issued by this laboratory, including certificates bearing the name EGL International and/or the internet address www.eglreports.org, after this date is therefore a counterfeit report and the EGL trademark rights owners do not accept or regard such grading reports as reliable or credible.

The EGL trademark rights owners have let it be known that the only laboratory in Israel eligible to issue grading reports that carry the EGL trademark and logo is the EGC laboratory.

FABERGÉ REVIVES THE PEARL EGG

In a homage to the forthcoming centenary of the last Fabergé Imperial Eggs ever delivered, Fabergé has revived the tradition of creating these precious *objets d'art*. The artistic jeweller has crafted a one-of-a-kind Pearl Egg in collaboration with the Al-Fardan family, one of the world's most renowned collector of pearls.



The Fabergé Pearl Egg is the first egg created in the 'Imperial Class' since 1917 and was unveiled on the Fabergé booth at the Doha Watch and Jewellery Exhibition, which was held at the Qatar National Convention Centre last month.

The egg draws inspiration from the formation of a pearl within an oyster, and the egg's mother-of-pearl exterior opens to reveal a unique grey pearl of 12.17 ct, sourced from the Arabian Gulf and exhibiting exceptional purity and a highly unusual shade of grey.

The work of 20 craftsmen, the *objet* features 139 fine, white pearls with golden lustre, 3,305 diamonds, carved rock crystal and mother-of-pearl set on white and yellow gold. Each pearl was hand-selected by Hussain Ibrahim Al-Fardan from his private collection. A special mechanism enables the entire outer shell to rotate on its base, simultaneously opening in six sections to unveil its treasure.

Fabergé was founded in 1842 and the Imperial Easter Eggs were commissioned by the Russian Imperial Family. The most expensive piece made by Peter Carl Fabergé was a pearl sautoir, gifted by Tsar Alexander III and Empress Maria Fedorovna to Princess Alix of Hesse on her engagement to Tsar Nicholas. ■

The 2015 Tucson Experience

Upbeat, well-attended and far too many shows and events to cover; Gary Roskin FGA reviews the largest gathering of gem and mineral shows in the world.



The Tucson Gem and Mineral Show floor.

There were 41 listed shows this year in the Tucson Show Guide (www.TucsonShowGuide.com), taking place all around the city of Tucson, Arizona, from 28 January – 15 February. There are far too many shows for one person to actually cover, so choosing where you go and what you see is one large part of the Tucson preparatory requirement. Even if you make a list and with all good intentions try to attend at least half a dozen shows on that list, there's never a guarantee that this will all fall into place. And in truth, it rarely happens the way you plan.

While it might be ideal for some to opt in to visit the American Indian Arts Exposition or Mineral and Fossil Co-op, or one of thirty other unique shows at one of the local hotels and motels or temporary tents that pop up this time of year, the main events — the two most important shows for the working gemmologists — are the AGTA GemFair (www.agta.org/tradeshows) held in the Tucson Convention Center, and the GJX Gem and Jewelry Exchange (www.gjxusa.com), held in the temporary tent across the street. If you can plan a two-week trip, the Tucson Gem and Mineral Show (TGMS), held in the Tucson Convention Center after the AGTA GemFair packs up and vacates the building, would certainly round off any Tucson experience.

THE BUSINESS OF DOING BUSINESS

The AGTA GemFair is by far the best gem show in Tucson, featuring loose gem dealers and jewellery designers with finished pieces, all with fine gem materials, and with mandatory



A show-stopping sphene weighing 33.90 ct, courtesy of Bill Barker.

written full disclosure of treatments. The GJX tent across the street always gives the AGTA show a good run for its money, but there's more of a mix of gem quality, and no guarantee regarding disclosure.

The first two days of both shows were busy with buyers on the floor. From the numerous dealers we spoke to, those first two days brought enough business to eclipse their expectations and all of last year's sales. Granted, this is a general statement, and there wasn't much business the past few years. Of course, there were still too many dealers we spoke to who had a lousy Tucson this year, making few or even no sales whatsoever.

While business was competitive, overall we found prices to be firm and modestly high, especially for anything red, green, or highly popular. Ruby prices were also definitely up.



Barnett Bear was everywhere in Tucson, and was seen with such notables as John Koivula, Elise Skalwold, Dr John Emmett and Michael Cowing.

Several reasons for better business and firm prices were bandied about, but the one which was reported the most was that the Chinese economy was still doing well; the Chinese gemstone cutting industry needs a continuous supply of rough to keep everyone busy, and so the rough that would have normally shown up in Tucson had apparently already been shipped to China. This meant that the fine material that did show up in Tucson was priced high enough but not too high — still affordable to the international buyers. To the American buyer, affordable meant the smaller or lesser quality larger goods. Modest purchases for replenishing inventory were realized.

SEEING RED

Red stones were extremely popular and it was as if the transparent rhodochrosite collectors finally noticed that prices were as high as ever and it was time to cash out. One of the most spectacular gems of the show was with Mayer & Watt: an incredible 15 ct rhodochrosite (1), from the incomparable (but now sadly closed) Sweet Home Mine in Colorado. Also with

Mayer & Watt was a beautiful trapiche emerald (2). With regard to rhodochrosite, there was at least one larger specimen, seen with Shelly Sergent and Craig Lynch at the Somewhere in the Rainbow Collection. Entire suites of transparent rhodochrosites were also seen at several booths in GJX as well as one of the outer shows, the Pueblo Gem & Mineral Show, held at the Riverpark Inn — an easy walk from GJX.

This is the perfect example of what we call the 'Tucson effect': we saw at least 30 transparent 'Sweet Home' rhodochrosites, over 2 ct each. This makes you believe that there are thousands of carats of this material somewhere. What it is really showing you, however, is most likely to be the world's entire supply (or at least 75% of it) and if you do not buy it now, you may never see it again. Some gems are snapped up on day one, and if you had seen it earlier and thought, "I'll think about it and come back later," well, it was gone when you finally got back to it. Welcome to Tucson.

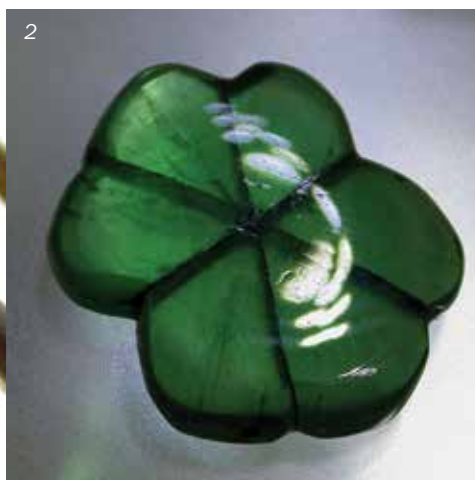
Burma rubies (yes — even though there is a US ban on Burma rubies, there were plenty on hand) were priced high. We are



A mountain of natural colour, Bolivian ametrine, faceted by Mark Gronlund, was quite the stunner.

not quite certain whether this price was to make up for the past three years, or whether dealers knew that it would cost them that much to find replacement inventory.

Tanzanites were available in all sizes, qualities and shapes, and emeralds seem to have maintained their popularity this year as well. Interesting to note, these two gems can vary widely in value based upon just slight differences in tone and saturation. For



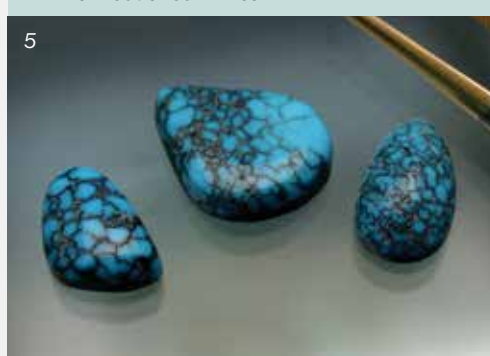
1: From one of the most famous (and now closed) transparent rhodochrosite deposits, the Sweet Home Mine, this 15+ ct rhodochrosite is no doubt one of the largest and nicest transparent rhodochrosites you may ever see. Courtesy of Mayer & Watt.

2: There were so many emerald trapiches in Tucson you would think they were common. This beautiful floret was seen with many more trapiche emeralds at Mayer & Watt.

3: Courtesy of Stone Group Labs, here is your confirmation for the origin of red tourmalines being called rubellite. Almost a perfect match, here we have a 5 ct no-heat Thai ruby with a 21 ct rubellite. This explains everything!

4: Stefan Klein of Herbert Klein carves some of the most beautiful flowers we've seen. This is rubellite tourmaline.

5: Rediscovered, this beautiful spiderweb matrix turquoise is courtesy of Richard and Helen Shull from Out of Our Mines.





One might assume that seeing this material in its large rough form that this would be natural colour, but we were informed quite to the contrary that this entire piece was in fact heat-treated amethyst.

example, it was seen that just one small jump in tone can more than double the price per carat with either gem. And the same is true with a small jump in saturation.

Speaking of saturation, Eli Eliezri at Colgem in GJX presented us with several fancy vivid yellow diamonds that allowed us to see just how wide the vivid range can be. The super saturated Type Ib yellows are coming from a

relatively new deposit in Sierra Leone, called the Zimmi mine.

Stone Group Labs brought out a 5 ct no heat Thai ruby and a 21 ct rubellite tourmaline for colour comparison. Looking at 3, we can see just how rubellite acquired its name. Another stunning rubellite was from Stefan Klein of Herbert Klein who carved the wonderful piece in 4.

Richard and Helen Shull at Out of Our Mines took the time to show us some incredible spiderweb matrix turquoise (5). The locality for this turquoise has had references in geologic reports dating back to 1910. One of their mining partners, Philip Chambless of Southwest Gem, had been researching this 'lost' deposit for about 20 years when they joined forces five or six years ago to see if they could help him track it down. Richard and Helen have a reputation for finding forgotten gem deposits. After a number of field seasons over five years, they finally put all of the pieces together and rediscovered the deposit. Named the Black Web Gem mine, the workings have produced only about 0.5 kilo of rough material so far, with most of it displaying the black spiderweb matrix.

EDUCATION

Tucson isn't just about finding gems and jewels, but also about learning and meeting the people who bring educational events to the shows. As in past years, the highlights include the free and fee-based educational seminars and workshops in conjunction with the AGTA GemFair, as well as events from outside organizations, such as the two-day appraisal conference presented by the National Association of Jewelry Appraisers (NAJA), and which was sponsored by Gem-A, and the one-day gemmological conference presented by the Accredited Gemologists Association (AGA).



6: Dona Dirlam receiving her Lifetime Achievement Award, with Stuart Robertson (left), vice president of Gemworld International and president of the AGA, Robert Weldon (second left) GIA's librarian/photographer, and Dr James Shigley (far right), distinguished research director at GIA Carlsbad.

7: Dr Thomas Hainschwang FGA of GGTL Laboratories, Balzers, Liechtenstein, with the Antonio C. Bonanno Award for Excellence in Gemology, awarded by the AGA. This Award recognizes those who have made significant contributions to the gemmological field.



The list of featured seminars at AGTA included our own hands-on Gem-A workshops, with Andrew Fellows FGA DGA and Lizzie Gleave FGA DGA focusing on Stimulating Simulants and Spectacular Spectrums. Richard Drucker FGA, president of Gemworld International, presented 'Trending now in Tucson', which covered market trends, industry issues, and the gems you'll see in Tucson.



This 12.46 ct cushion brilliant-cut tsavorite, courtesy of Bruce Bridges, came the Komolo mine in Tanzania. Bruce reminds us that square and cushion shaped tsavorites do not come easily from the rough, losing close to 90% in the cutting process.

The two-day NAJA appraisal conference featured presentations on exotic common opals, intaglios, designer jewellery driving the market, the latest wild regulations and a lecture and hands-on workshop on the new generation of natural-looking CVD-grown diamonds.

The all-day AGA conference featured notable gemmologists such as Christopher Smith FGA, president of American Gemological Laboratories, who spoke about emerald enhancements; Shane McClure, director of West Coast Identification Services for Gemological Institute of America (GIA), who spoke about inclusions in country of origin identifications; and Dona Dirlam, director of the Richard T. Liddicoat Gemological Library and Information Center, who gave us a history of gemmological literature from past to present. Dr Lore Kiefert FGA, of the Gübelin Gem Lab, spoke on her travels to see first-hand the black opal finds in Ethiopia. Photomicrography in the studio and in the field, featured Danny Sanchez, The Art of Photomicrography, and

Edward Boehm FGA, Smart Phone Photomicrography. The day's event culminated with the presentation of the Lifetime Achievement Award to Dona Dirlam of GIA (6), for advancing and maintaining the world's largest and most important gemmological library in the world, as well as Dr Thomas Hainschwang FGA (7), of GGTL Laboratories in Liechtenstein, who received the Antonio Bonanno Award for Excellence in Gemology.

PARTIES GALORE

The International Coloured Gemstone Association (ICA), sponsored an evening of enjoyment, and took advantage of a captive audience to announce the ICA Congress in Colombo, Sri Lanka, from 16–19 May. The Congress promises to be outstanding, with exciting events such as cricket and golf tournaments scheduled over the four days.

Gem-A's inaugural Big Gem Bash was also a much-talked about social event, held in the historic Scottish Rite Cathedral in downtown Tucson on 5 February, with many attendees stating that it was the best networking event they'd been to over the Tucson shows. Over 150 people comprising Gem-A staff, members, students, potential students and lifelong friends of Gem-A came together for an evening of good food, drinks and gem chatter — an event that is sure to be repeated next year. Many thanks to our sponsor, the Jewelry Insurance Brokerage of North America (JIBNA), whose support made the evening possible.



Brian Cook with Barnett Bear at Gem-A's successful Big Gem Bash.

IT'S WHAT'S INSIDE THE TENT THAT COUNTS

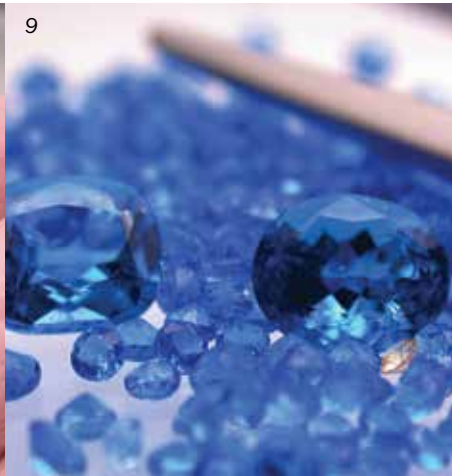
If you are a gemstone supplier and are not a member of the American Gem Trade Association, you want to be in the GJX tent. The Brazilians, Sri Lankans, and the Germans are all in here, as well as dozens more international representatives. This is where you go to see the famous Munsteiners,



In all shapes and sizes, rainbow moonstone, courtesy of Boston Gems.



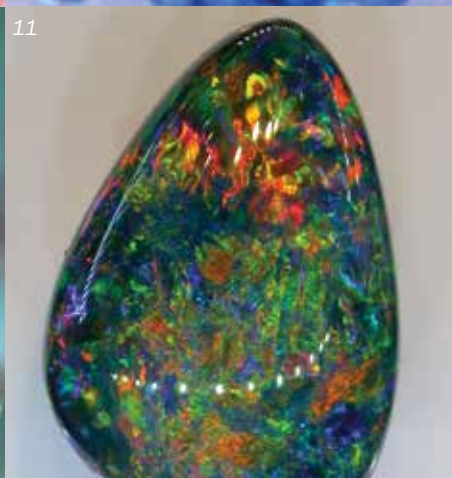
8



9



10



11

8: Big enough, this more than amazingly rare, 86+ ct gem quality Burmese peridot is just one of several gem varieties Constantin Wild can show you.

9: Known for its vivid saturated blue colour, this is hauyne from Constantin Wild. The two large faceted ovals weigh just over 0.60 ct each.

10: These whimsically carved and polished beads, courtesy of Engel & Co. KG, certainly caught our attention. Cut from one piece of rough, the rutilated quartz bead weighs 12.8 g. The smoky quartz 'Mickey Mouse' bead weighs 3.8 g, and the amethyst weighs in at 6.7 g.

11: Stunning play of colour is obvious in this 50+ ct Lightning Ridge black opal. Courtesy of Joel Price Opals, New York, USA.

12: Oregon sunstone from Karla Proud, showing classic clustered copper platelets.



12

Berndt and Tom, as well as Wild (with his rare 86+ ct Burmese peridot (8) and large faceted oval hauyne (9)), Henn, Lang, Engel (with his 'cool' beads (10)), Grimm, and others. Quality craftsmanship and large colour is what you expect, and exactly what you see.

Then there are the hidden treasures scattered around the tent where we saw not only a few inclusion rarities, but surprises as well. There were fluorescent opals (seen in Volume 34 (Issue 4) of *The Journal of Gemmology*) at Coast to Coast Rare Gems (www.rarestone.com), as well as transparent



The 'wow' factor was shown to us at A&Z Pearls, with these 9.5–10 mm Japanese Akoya cultured pearls, showing great lustre, no blemishes, and all of them very round.

rhodonite with Luciana Dias Barbosa at the Gemological Center Rare Gems, from Minas Gerais, Brazil. There were some stunning Lightning Ridge black opals from Chris Price (11), also seen with Vicki Drackett at Down to Earth Opals. And we would be remiss if we didn't mention the three awesome black pair and lone white Baja California natural pearl drops seen with Tish and Wes Rankin at Pacific Coast Pearls, or the dark purplish-red imperial topaz seen at the Sabbagh Brothers, also from Minas Gerais.

Speaking of jewellery designers, we met with Martin Bell at Paula Crevoshay who showed us a fabulous brooch in the design of a bitterroot flower, containing 397 gemstones, with a total carat weight of 29.75, and which used pink and yellow heat-treated Montana sapphires and enamel. It's been said before, but you see absolutely everything in Tucson.

Wild and Petsch were once again showing cinnamon zircons from Africa, and just around the corner from their booth was Tadashi Fujimoto at KIAI Company Ltd., Japan, who handed a 9 ct cat's-eye emerald. He had several dozen of them.

PUEBLO, J.O.G.S AND OTHERS

There are many gem shows that you want to attend but may not have the time. Two of those were the Pueblo Gem & Mineral Show (www.pueblogemshow.com) at the Riverpark Inn, where you will find everything under the sun, including Oregon sunstone (12), award-winning gem cutter John Dyer, as well as Tibetan singing bowls and native American artifacts, and then there's The Jewelry and Organics Gem Show (J.O.G.S, www.jogsshow.com) where you will find the largest selection of ambers, ivories and a number of other ornamental gem materials.

One show that we were able to squeeze in was the Westward Look Show (www.westwardminerals.com), important for significant gem mineral specimens. Examples seen this year were moderately-sized and priced new finds of medium dark blue (no greenish secondary colour) aquamarine from Vietnam, to the \$50,000 mineral specimens of tourmaline on quartz, beautiful rich green diopside clusters, crystalized gold on white quartz, magnificent fluorite octahedrons sitting atop matrix, and too many beautiful minerals — names one has only read about. ■

Best in show

Olga Gonzalez FGA takes a look at this year's winners of the 2015 AGTA Spectrum and Cutting Edge Awards.

1: Platinum ring featuring Paraiba tourmaline accented with French-cut diamonds by Leon Mege.



The American Gem Trade Association (AGTA) Spectrum and Cutting Edge Awards have gained notoriety for being one of the most hotly anticipated awards in the trade, and are considered to be the most respected and prestigious creative awards for the design industry. Creative reworking of design is hard to come by — much less innovation — but since its inaugural year in 1984 AGTA has been bringing together an exceptional panel to deliberate on jewellery and gemstones that are breaking the expectation barrier. From a stunning cabochon Paraiba ring to a spectacularly faceted rhodolite garnet suite, designers continue to delve

into the creative by spearheading designs that range from classic contemporary to pioneering.

With over 500 entries considered, the 2015 AGTA Spectrum Awards, judges combined their expertise in art, design, goldsmithing, manufacturing and lapidary to determine the best of the best for each category, with each piece examined by hand, and being considered with an eye for craftsmanship and quality of the materials used. All of the winning pieces were on display at the AGTA Spectrum Awards in Tucson, Arizona, from 3–8 February and honoured in its annual awards dinner on 7 February.



2: An 18 ct white gold 'Ophion's Treasure' ring featuring emeralds accented with diamonds by Heena Chheda.

3: 'Midnight Kiss' ring featuring 18 ct yellow and white gold with an unheated blue sapphire, white and yellow diamonds, blue sapphires and tsavorite garnets by Evelyn Huan.



4: Emerald-cut unheated yellow sapphire by Allen Kleiman.



5: Brilliant, step-cut unheated blue sapphire by Joseph Ambalu.



6: Oval cabochon tanzanite by Hemant Phopaliya.



7: Rhodolite garnet suite by Dalan Hargrave.

Winner of the Best of Show in the Classical category was Leon Mege, with his stunning platinum ring (1) featuring a 4.71 ct Paraiba tourmaline accented with French-cut diamonds. The 2nd place winner in the Classical category was Heena Chheda, with her wonderful 18 ct white gold 'Ophion's Treasure' ring (2), featuring emeralds totalling 6.74 ct accented with diamonds. The 3rd place was awarded to Evelyn Huan for her 'Midnight Kiss' ring (3), which features 18 ct yellow and white gold with a 5.76 ct unheated blue sapphire, with white and yellow diamonds, blue sapphires and tsavorite garnets.

Remarkable examples of faceting were on display at the AGTA Cutting Edge Awards, with Allen Kleiman winning 1st place in the Classic Gemstone category with a 20.24 ct emerald-cut unheated yellow sapphire (4), while 2nd place was awarded to Joseph Ambalu, with his 19.06 ct brilliant, step-cut unheated blue sapphire (5). Winner of 1st place in the All Other Faceted category was Hemant Phopaliya, with a 43.96 ct oval cabochon tanzanite (6).

Some exquisite examples of gemstones were also seen in the Pairs & Suites category, notably Dalan Hargrave's 1st place-winner rhodolite garnet suite shown in

7 totalling 138.49 ct, while 2nd place was awarded to Mikola Kukharuk with a stunning pair of imperial topaz (8) totalling 70.14 ct).

The top two places in the Innovative Faceting category were awarded to John Dyer for his 63.19 ct fancy round cuprian tourmaline (9) and 67.92 ct swirling 'nebula' ametrine (10) respectively, both stunning examples of faceting in their own right.

Naomi Sarna, winner of Best Use of Pearls, Platinum Honors for Men's Wear and 1st place in Carving says of the award: "Winning a Spectrum Award is always thrilling... to have judges from all aspects of the gem world see my work as worthy of these awards gives me a great feeling of gratitude." Naomi's 1015 ct 'Rose de France' amethyst carving (11) turned heads and impressed the judges, incorporating her signature ability to turn a gemstone into fluid movement, whilst her 18 ct rose gold necklace featuring white cultured 'baroque' pearls accented with

8: Stunning pair of imperial topaz by Mikola Kukharuk.



9: Fancy round cuprian tourmaline by John Dyer.

All photos courtesy of AGTA.



10: Swirling 'nebula' ametrine
by John Dyer.

12: An 18 ct rose gold necklace featuring
white cultured pearls accented with
pink diamonds by Naomi Sarna.



11: Carved amethyst
by Naomi Sarna.

pink diamonds (12) made wonderful use of the pearls' unique shapes.

Also worthy of mention was Bernie Benavidez, who won 2nd place in the Carving category with the remarkable 'Eye of Genesis' opal carving (13) totalling 260 ct.

AGTA CEO, Douglas K. Hucker, said of the Awards: "The level of artistry never ceases to amaze me, from the seasoned veteran to

the design neophyte, each entry is a testament to the imagination and the heart of the creator."

For more information about the awards, and to view the winners in their entirety, visit www.agta.org/awards. After an ingenious 2015, it leaves anticipating voyeurs ready to see what next year brings. ■



13: 'Eye of Genesis' opal carving by
Bernie Benavidez.

IJT 2015

Andrew Fellows FGA DGA reports on this year's International Jewellery Tokyo (IJT) Show, held at Tokyo's Big Sight exhibition centre, from 21–24 January.

As usual the show was well attended, with over 1,000 exhibitors from around over the world. Gem-A had a strong presence with a team comprising Lucy Dean, myself and Gem-A's Japanese ambassador and tutor, Ayako Naito FGA DGA. The show started with the traditional welcome ceremony and business meetings, which presented a good opportunity to meet acquaintances from previous years and also to forge new friendships for the future. As the largest and most important jewellery show in Japan, you can expect a high turnout for IJT; overall figures for attendance released by the show organizers showed that in excess of 25,000 people passed through the doors — all of these buyers, sellers and potential students and members — and was reflected in the number of people visiting the Gem-A stand.

Located between the diamond sector and the gemstone sector, the Gem-A stand was well-positioned to attract a range of gemmology enthusiasts, from the 'first-timer' looking to start their gemmological education, through to long-standing members, keen to maintain links with the oldest gemmological authority in the world. With such a wide range of interests catered for at the show, there was never a dull moment, and many stopped by to show their latest purchase or to ask advice on some aspect of gemmology.

It was also interesting to see how many people enquired about Gem-A's newly-launched Japanese online distance learning (ODL) courses, and encouraging that so many of them actually put their names down to sign up. Hopefully this is a sign of how well-received



Tokyo's Big Sight exhibition centre.
Photo Ayako Naito.



this method of learning is in an area previously reserved for face-to-face tuition, and will pave the way for the new launches of other ODL courses. Instrument and book sales were also high, and by the close of the show the display counters were looking decidedly depleted, with everything from loupes and tongs through to microscopes selling well.

As always, IJT is a key show for membership, falling at the beginning of the new year in line with renewals. This year's show was no different to previous events in this respect, with current members renewing, as well as a growing number of new graduates signing up for membership, showing how Gem-A has grown its interests and activities in this expanding market. Also of note was the number of members showing interest in both the new Gem-A mascot, Barnett Bear, and the new Gem-A ties, available to members and associate members, with different designs denoting the different forms of membership: FGA, DGA, FGA and DGA and Associate. Many members purchased ties as they renewed their membership, highlighting the pride associated with our organization.

Barnett Bear was also there to uphold his role as emissary on a quest to discover gemstones. During the show he ran a gemmological competition where one of his counterparts was presented as a prize to the successful gemmologist. Numerous people tried to visually identify the range of mystery stones, which brought an element of fun and friendly competition to the show, while also seriously highlighting the need to keep up to date with gemmological developments and skills.

Notable stones seen around the show were a natural conch pearl, weighing in excess of 30 ct, and the ever present range of natural fancy colour diamonds, covering sizes from melee up to 3 ct and higher. A beautiful type IIa D colour, IF clarity diamond was also on display, weighing in at a little over 10 ct — a sight to please any gemmologist or diamond-grader.

Many thanks to our Japanese hosts; we look forward to returning to IJT next year. ■

Making an impact at Tucson

An alternative editorial by Eric Fritz, Gem-A's North America manager — fresh from Tucson.

I am a veteran of many years as a 'shopper' at the Tucson Gem and Mineral shows — I've attended as many as 25 venues in one season. This year, however, was different; very different. The shopping aspect of my visit was minimal. My budget was still blown, just in a much shorter period of time. And for the first time, I actually had to work at the show. Actually, let me rephrase that statement: I had the honour and privilege to represent Gem-A during the largest series of show venues in the world.

The Gem-A brand is well respected and we were proud to be representing it. The Association's team members were asked to serve on task forces, attend events, dinners, seminars and discussions. People were honoured to be associated with the Gem-A team during the Tucson show — and what a team we had. CEO James Riley's vision was for Gem-A to be ever-present, at every event... and the strategy certainly worked. People are still commenting and talking about Gem-A, weeks after the event. We had 13 members of the team among virtually 100,000 people over 17 days — is it possible that such a small number can actually make such a strong impact? In retrospect I can answer that question: Yes we can, and yes we do.

During the show Gem-A was the sponsor for events held by The National Association of Jewelry Appraisers (NAJA), Accredited Gemologists Association (AGA) and the reception for the opening exhibit at the University of Arizona Mineral Museum. We had staff at every conference, attended all major functions, conducted workshops and acquired stones for teaching. We had booths at NAJA, AGA and AGTA, and at our newest addition: the Tucson Gem and Mineral Show (TGMS), which wrapped up over two weeks of gem, mineral and jewellery mayhem.



Our mission for North America is to bridge the gap between the gem and mineral communities, and what a success that has been so far! The sales at TGMS exceeded all the other venues. The level of interest in courses and information about Gem-A exceeded expectations. On day two of the show we designated one side of



the booth as a gemmological workshop for school groups. The looks of amazement on children's faces as they were shown spectrums, dichroism, interference patterns and inclusions under the microscope reminded us of the long-term importance that Gem-A provides in education to a future generation. The blank stares of the adults melted into smiles and questions as they experienced their children being captivated. Education has to start at the beginning, and Gem-A is the alpha and omega when it comes to gemmological education. Young people must first take an interest and then allow development into education and vocation.

Gem-A hosted a new networking event this year, Gem-A's Big Gem Bash. Many old and new friends took time out from busy schedules and curiosity to stop in. I want to thank all of you who attended, and we hope to see many more of you next year. The event could be viewed as the 'who's who' of gemmology; many countries, institutions and associations were represented and everyone who was in attendance are an integral part of the world of gemmology. I also want to thank the personal jewellery insurer JIBNA for its kind sponsorship of the event.

I once wrote a paper using the analogy of putting all the parts of a Swiss watch in a box and shaking them up; no matter how much time goes by, the parts never come together and function with precision as intended. It requires a fine watchmaker or creator to put the parts in a proper order, so they all have a place and work in unison. Gem-A is working towards being the mechanism that brings all these pieces together in unison, and certainly demonstrated this at Tucson. And yes, routine maintenance and oiling are critical to keeping accurate time.

Once again I would like to thank each and every one of you; we are all part of the whole, and it is essential to work together in watch-like precision and harmony. ■



Gem-A

INSTRUMENTS



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Understanding Gems

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New version of GemePrice™ launched

The new version of GemeWizard's™ GemePrice™ has been launched: GemePrice4.0™, featuring a touch-friendly interface and a host of new and exciting features, along with new gems and colours.

GemePrice™ is an online wholesale pricing system which allocates prices to fancy coloured diamonds and gemstones according to the 'Color Codes' generated by GemeWizard™. GemePrice™ enables a user to find the price of a specific gem either by defining the gem's specifications or by browsing through the pricelist's various grades and sizes. The GemePrice™ database contains grades, qualities, commercial names and prices of more than 800 fancy coloured diamond's colour combinations and over 50 types of the most traded gemstones with a visual display of over 15 shapes. The user can easily find the price according to any or all possible gem parameters: gem type, shape, particular colour, colour grade, clarity grade, cut grade and treatments.

GemePrice™ is fully integrated with GemeSquare™, the world-renowned colour communication system, and is offered with a multi-lingual interface for users worldwide.

Subscriptions to GemePrice™ and GemePro™ are now available to purchase from Gem-A Instruments. For more information contact instruments@gem-a.com.

Students taking the Coloured Stone Grading Course run by Gem-A (in conjunction with GemeWizard™), receive a year's subscription to all GemeWizard™ products, including GemePrice™ — an online pricing system and price list for diamonds and gemstones.

GEMEPRICE™ FEATURES

Three pricing modes: 'Price Search', 'Price List' and 'Price Calculator'

Price Search mode enables the user to search for the price of a gem by entering its parameters, Price List mode displays the prices in a table format and Price Calculator mode enables the user to find out the price of a specific gem with exact of known parameters (e.g. when a gemmological certificate is present).



'Pricing Station' feature for jewellers and retailers

This all-in-one feature enables the users to obtain the individual current cost prices of each component comprising a jewellery item: the main gem, each of the additional gems used in the jewellery, the metal type etc. and get an idea of the total component cost of the jewellery. While this is not an appraisal of the price of the piece of jewellery, it provides the jeweller or retailer with guiding information regarding the stone-selling price.

Comprehensive digital Colour Master

Comprehensive digital Colour Master sets for fancy coloured diamonds and gemstones are built into the software, enabling the users (what otherwise would be impossible for a member of the trade to obtain) to use the Colour Master sets as handy working tools. Users are able to communicate and send their colour and price reports with their colleagues around the world via integrated email. They can now share the actual colour of their gems without going through the hassle of describing colour verbally. Moreover, their colleagues do

not have to be subscribed to GemePrice™ to view the colour communication, as it is sent by email.

Flexible markups

In addition to the wholesale pricing and Double-key Mark-up modes, users can now determine their own price markups using the 'Your Own Mark-up' option. The prices will be displayed together with the mark-ups, according to the selected mark-up mode.

Price authentication

Prices quoted by GemePrice™ are generated and authenticated by:

- Analysis of over \$250 million-worth of tens of thousands of fancy coloured diamonds and gemstones being offered for sale at any particular time on the internet
- Price reports for colourless diamonds and analysis of over \$4 billion worth of colourless diamonds being offered for sale at any particular time in the online database
- Prices allocated by a panel of industry-renowned experts
- Real-time commercial data

Prices are updated once every four weeks after thorough statistical analysis by experts using advanced algorithms to ensure data integrity. Prices for colourless diamonds are based on IDEX Price Report pricing information and a vast inventory database using GemePrice™ sophisticated calculation manipulations.

Other features

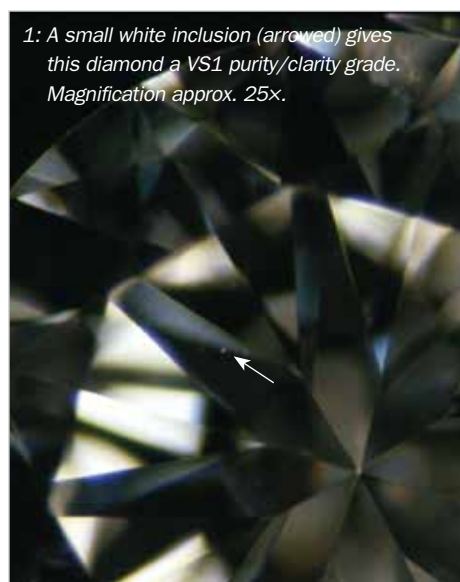
- Hundreds of colour grade rulers based on GemeWizard™ colour system
- Integrated with Quantum Leap PAS appraiser software
- Multi-lingual and multi-currency interface
- Compatible version for smart phones

The ins and outs of polished diamonds: crystal inclusions

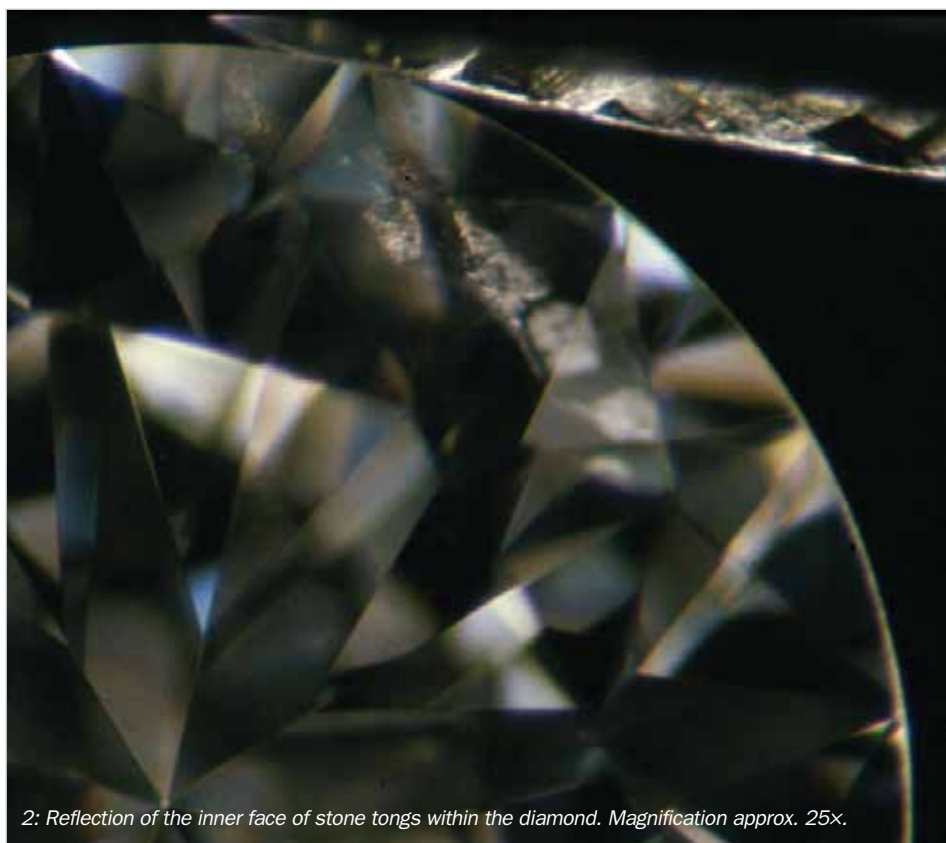
Grenville Millington FGA looks at the various crystal inclusions in diamond.

In the last issue we looked at the external feature of trigons but now it's time to look inside the polished diamond. There are only two main features that occur inside a diamond: crystal inclusions and cleavage fractures (occasionally colour zones or graining, which may be coloured, are also seen). This time we shall concentrate on crystal inclusions.

Jewellers are used to thinking of the '4Cs' when diamonds are mentioned, with one of the 'Cs' being the presence or otherwise of inclusions ('clarity'). It is here that diamonds differ from all other gems in the importance (commercially speaking) of tiny inclusions, which are often too small to be seen with the naked eye. More so, an inclusion that is only just visible under 10× magnification by an experienced grader would still affect the commercial value. Shown in the centre of **1** is a small crystal inclusion that is barely



1: A small white inclusion (arrowed) gives this diamond a VS1 purity/clarity grade. Magnification approx. 25×.



2: Reflection of the inner face of stone tongs within the diamond. Magnification approx. 25×.

One type of diamond that is notorious for oddly-shaped inclusions is the natural pink. In fact, if you are looking at a pink diamond that seems to have 'normal' inclusions then it is quite possibly a treated stone.

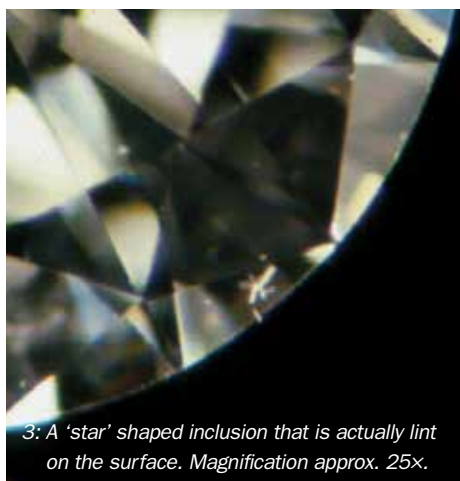
visible even with 10× magnification, and certainly cannot be recognized or identified with this magnification. If looked at under a microscope (maybe up to 80× magnification) then a couple of accompanying much smaller inclusions can be made out. The smaller inclusions do not affect the grade, it is only the central inclusion that gives this diamond its VS1 grade. From a gemmologist's point of view this inclusion is not worth

dwelling upon, but its presence could well have reduced this diamond's value by 30% (if a D.VS1 diamond is compared to a D.IF one). However, it is really from the gemmologist's perspective that these articles are being written, and it is not my purpose here to discuss the effect on price of any of the features mentioned.

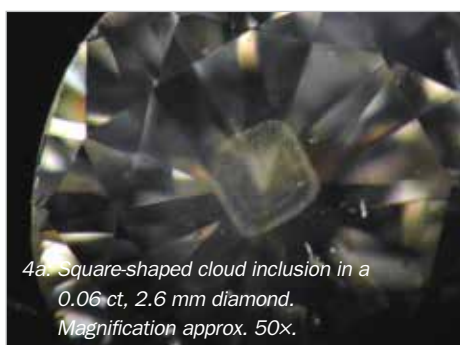
If we look further at the diamond shown in **1**, we see the effect shown in **2**, which is the reflection within the diamond of the

inside surface of the stone tongs. This, of course, has to be ignored.

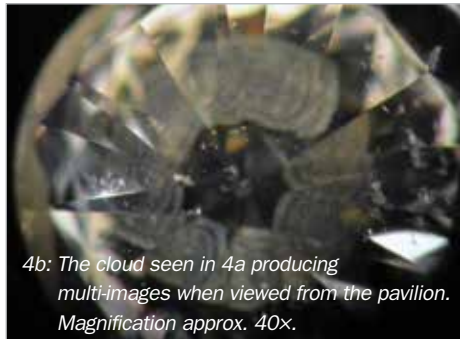
Something else has to be ignored when we are examining the insides of gems: foreign bodies on the surface. In **3**, towards the edge of the stone, you can see a white star 'inclusion'; this is actually lint on the surface. Many a diamond has had its clarity grade improved following a good wipe with a cloth...



3: A 'star' shaped inclusion that is actually lint on the surface. Magnification approx. 25x.



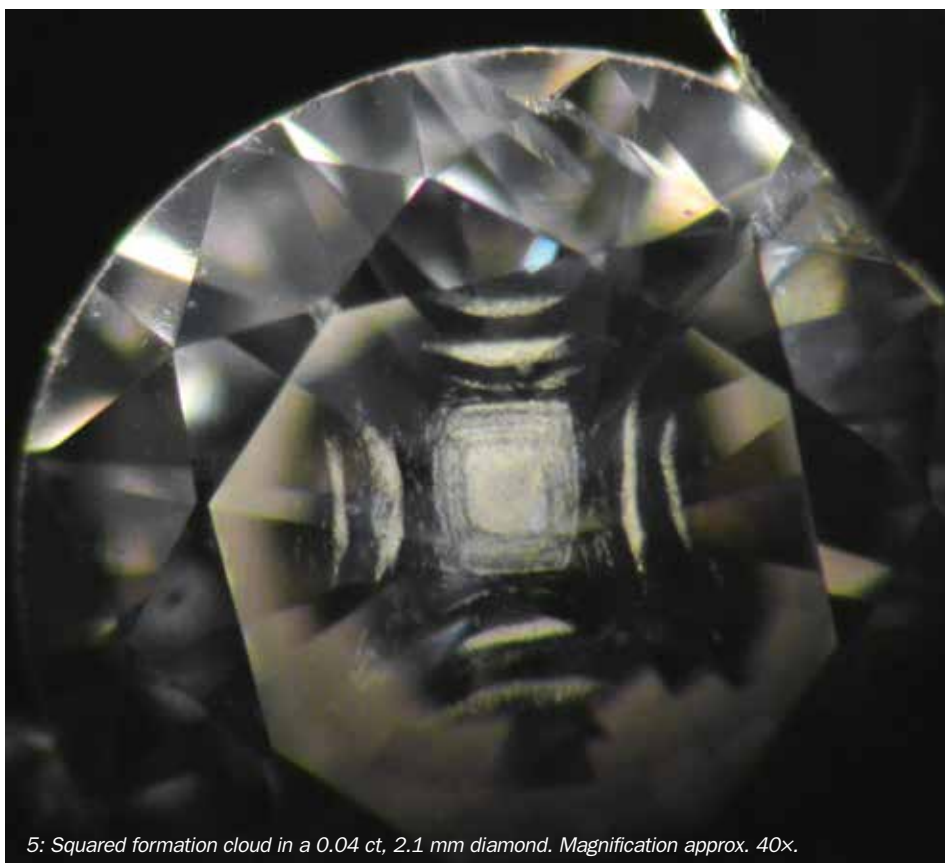
4a. Square-shaped cloud inclusion in a 0.06 ct, 2.6 mm diamond. Magnification approx. 50x.



4b: The cloud seen in 4a producing multi-images when viewed from the pavilion. Magnification approx. 40x.

Within the table area of the diamond shown in **4a** lies a square-shaped cloud with a concentric second line of extremely small inclusions. These obviously follow the shape of the original crystal when it was much smaller and subsequently now engulfed. In normal grading conditions (daylight or grading lamp over a white sorting pad) this cloud was almost invisible (it is shown in the photo with the searching darkfield illumination of the microscope). It was only when I turned the stone over — something that all graders do — and examined it from the pavilion side that I noticed the presence of this cloud (**4b**).

A variation of this square formation cloud is much more obvious in **5**. This one has accompanying side features forming a frame.



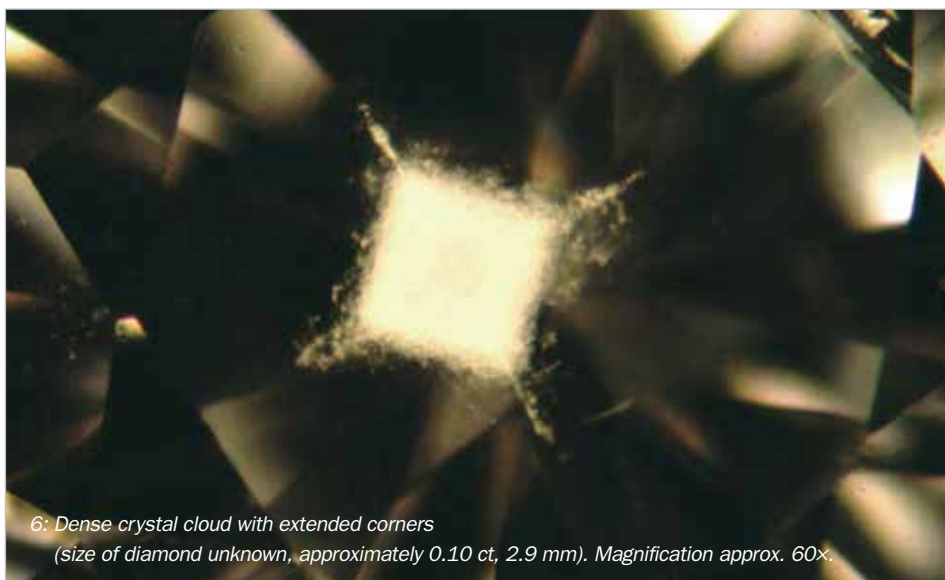
5: Squared formation cloud in a 0.04 ct, 2.1 mm diamond. Magnification approx. 40x.

A more commonly-seen version (although still rare) is where the corners of the cloud are extended, as in **6**.

So far, the inclusions have been extremely small, albeit grouped together into something readily observable. What about something bigger? The crystal (unidentified) depicted in this nineteenth century-cut diamond was a perfect 'rhomb' shape and had chamfered (bevelled) edges provided by other crystal faces (**7**).

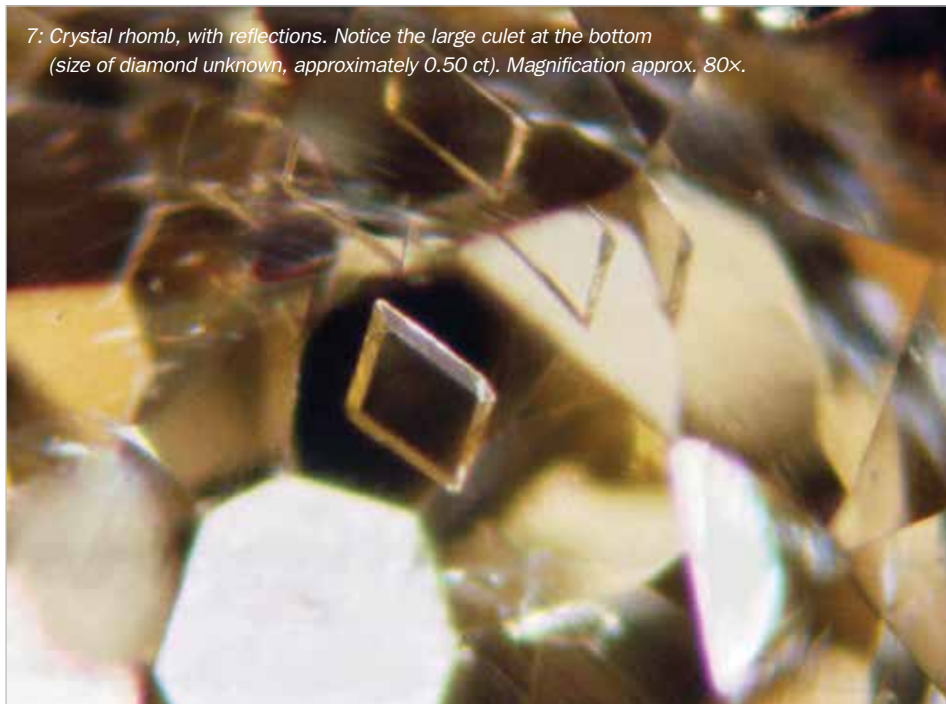
Such well-formed crystal inclusions within diamonds are not that often seen as the conditions for their formation are difficult. Hence, when crystals are seen that are of good size (relative to the diamond), they may be distorted or stretched. The crystal group seen in **8a** always reminds me of a fish.

A closer look in **8b** reveals a ghostly pyramid shape within the main area of the inclusion.



6: Dense crystal cloud with extended corners (size of diamond unknown, approximately 0.10 ct, 2.9 mm). Magnification approx. 60x.

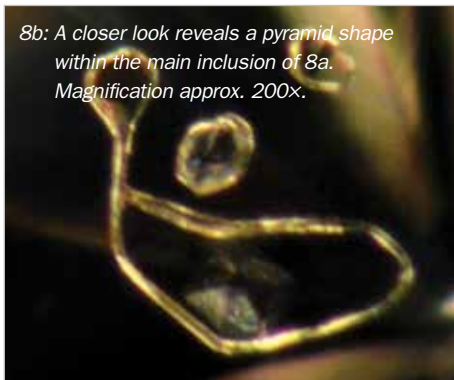
7: Crystal rhomb, with reflections. Notice the large culet at the bottom (size of diamond unknown, approximately 0.50 ct). Magnification approx. 80x.



8a: Distorted crystal group in a light brown 0.08 ct, 2.8 mm diamond. Magnification approx. 50x.



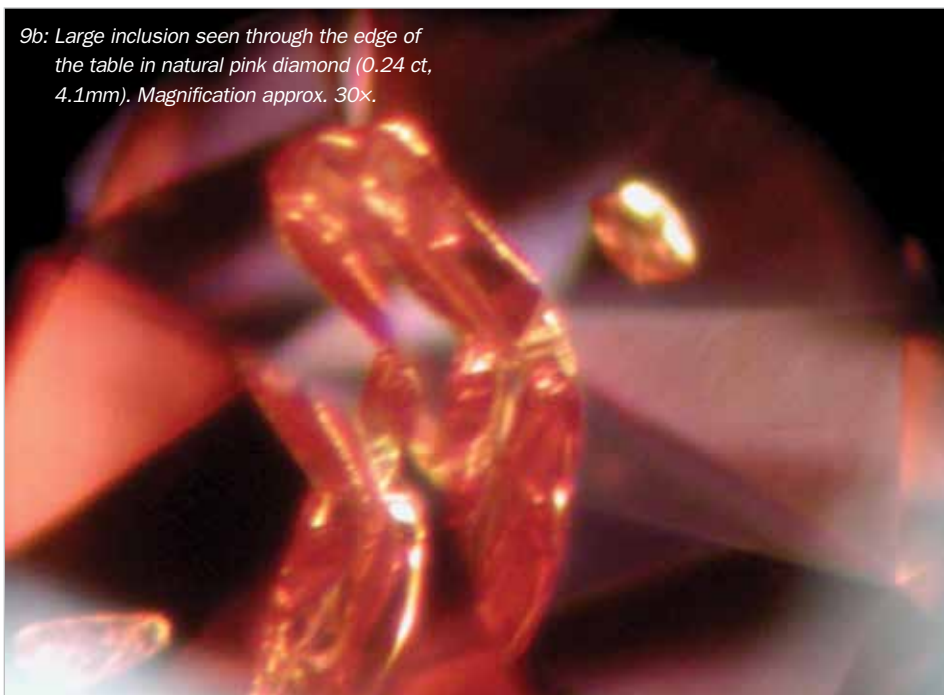
8b: A closer look reveals a pyramid shape within the main inclusion of 8a. Magnification approx. 200x.



9a: Twisted inclusion in a natural pink diamond. Magnification approx. 60x.



9b: Large inclusion seen through the edge of the table in natural pink diamond (0.24 ct, 4.1mm). Magnification approx. 30x.



One type of diamond that is notorious for oddly-shaped inclusions is the natural pink. In fact, if you are looking at a pink diamond that seems to have 'normal' inclusions then it is quite possibly a treated stone. Pink stones are often the result of lattice deformation; the pink colour being due to selective absorption of light, and this deformation obviously has an effect on included crystal development. Seen in **9a** and **9b** are large inclusions that look like molten metal drops.

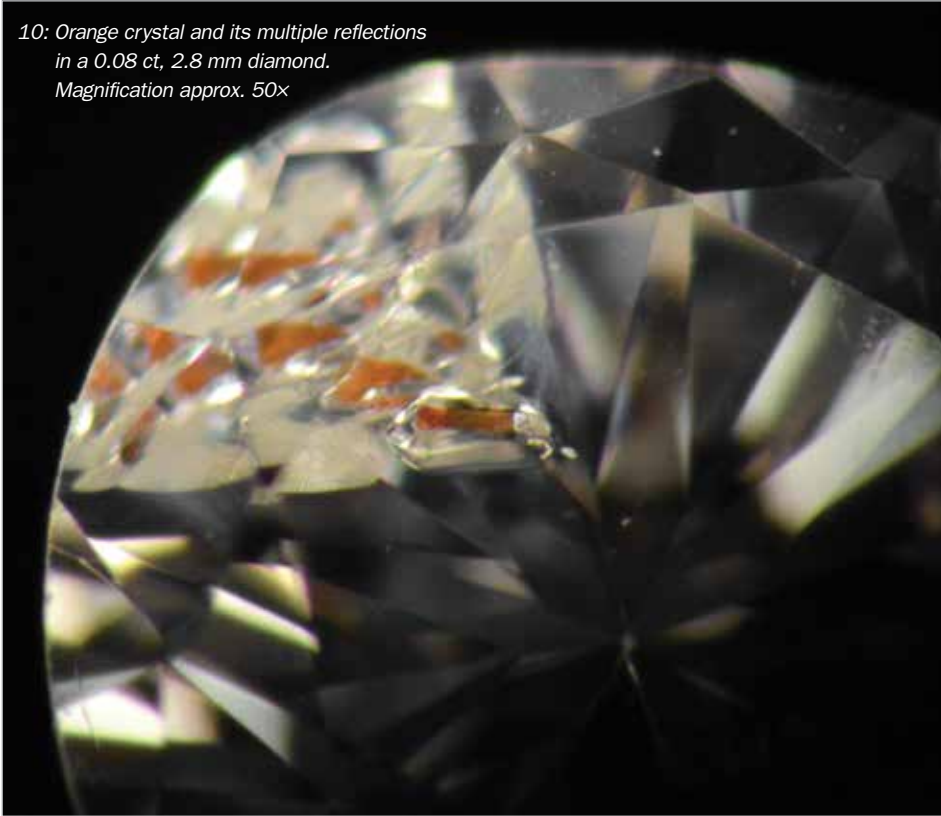
What about coloured crystal inclusions, however? For 'inclusion spotters' these are the ones to be on the lookout for, but the downside is that they don't come along too often. The first one shown here is a long, prismatic-type crystal of light orange colour (**10**), well below the table, which gives an effective reflective display. We have to assume that any orange or red crystal is garnet, although that seems odd when the crystal must be grossly distorted to take it away from its familiar rounded shape.

I recall being at a conference in London in 1981 when Professor Gübelin announced that he had discovered the first ruby inclusion within a diamond — although I haven't heard of another one since!

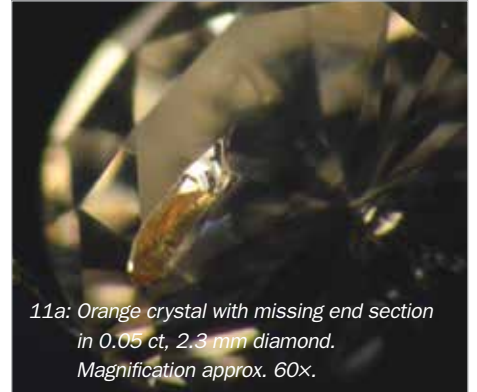
I came across a second diamond with a similar inclusion, shown in **11a** and **11b**. The included crystal breaks through the table facet and the end part has been lost, resulting in an interesting diamond surface.

The most exciting crystals to find within a diamond have to be red ones. Once again,

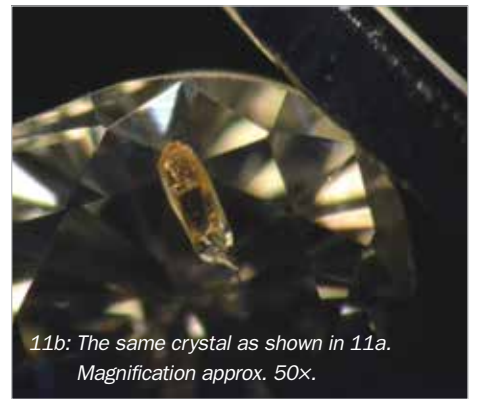
10: Orange crystal and its multiple reflections in a 0.08 ct, 2.8 mm diamond. Magnification approx. 50x



11a: Orange crystal with missing end section in 0.05 ct, 2.3 mm diamond. Magnification approx. 60x.



11b: The same crystal as shown in 11a. Magnification approx. 50x.

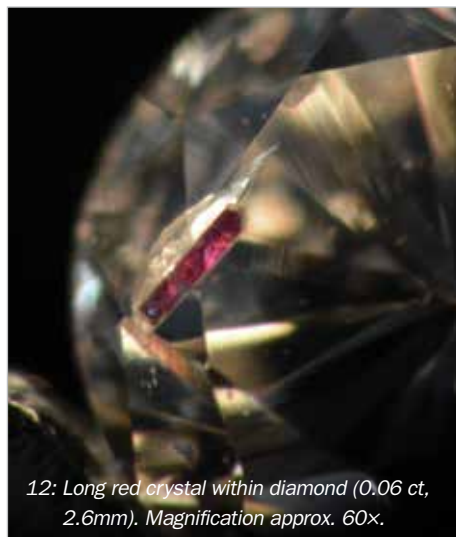


Many a diamond has had its clarity grade improved following a good wipe with a cloth...

they may be distorted (if we assume they are really pyrope garnet crystals) and appear as long prisms (12).

I did manage to come across a red crystal that conformed more to the shape we would expect from a garnet, shown in 13a and 13b.

The crystal featured in 13 appeared quite dark in normal viewing conditions and it



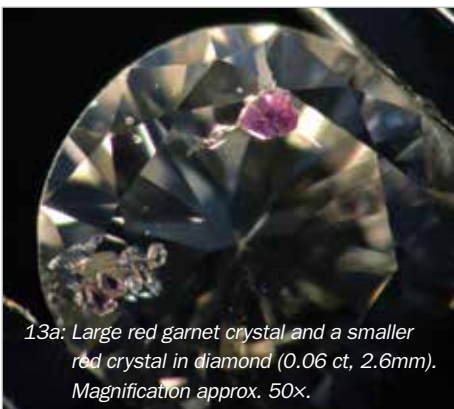
12: Long red crystal within diamond (0.06 ct, 2.6mm). Magnification approx. 60x.

was only on turning the stone during examination that a reddish-purple glint was noted. On transferring the stone to the microscope you can imagine my delight to find how this inclusion was transformed into a glowing red light.

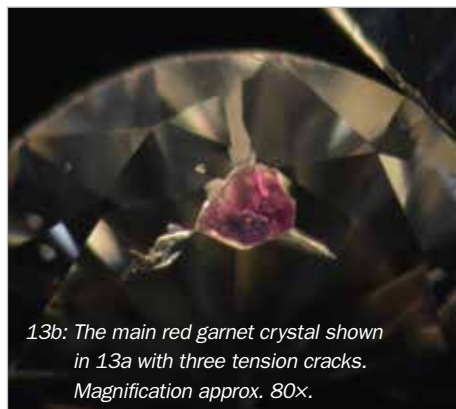
I have only come across one bright green, small crystal (diopside) within a diamond but unfortunately I was not in a position to photograph it. I await a second one.

I shall finish with a poor quality, 2.50 ct polished diamond (14), set into a ring.

This mounted diamond was milky, with lots of nondescript black, brown and rust-coloured inclusions, which are all probably graphite-lined or iron stained fractures. I actually quite liked it. ■



13a: Large red garnet crystal and a smaller red crystal in diamond (0.06 ct, 2.6mm). Magnification approx. 50x.



13b: The main red garnet crystal shown in 13a with three tension cracks. Magnification approx. 80x.



14: Brilliant-cut diamond of 2.50 ct



Doubling of back facets in synthetic moissanite.

Look before you beep...

Kerry Gregory FGA DGA tests a mystery set of stones that aren't what they seem.

I was asked to identify colourless stones in 78 pieces of jewellery for a recent consultancy job, to confirm whether or not they were diamonds. The items had been bought in by a member of the client's staff, and they wanted an independent opinion on them. An initial inspection had indicated that 54 of the pieces were set with synthetic moissanite and 24 with diamond. The client was hoping that all 78 were diamond, because they had been bought in at diamond money, but they obviously had a strong suspicion that this unfortunately wouldn't be the case, or they wouldn't have asked me to investigate.

I wanted to get to the bottom of why they had 54 synthetic moissanites that had been purchased as diamonds. They had

a dual diamond/moissanite tester in the shop of a type I had not seen before, and I was worried that it didn't work correctly. I decided to check the tester, as I felt it my duty to make sure that this did not happen again. When I checked the tester it picked up just 17 out of 54 synthetic moissanites, so it seemed that the tester could be at fault. However, I like to pride myself on not making assumptions and checking all possibilities, so I thought I had better make sure that these were not some sort of new synthetic moissanite that had managed to fool standard testers. I arranged to come back another time with other testers to see if they detected the synthetic moissanite.

On my second visit I took with me a Mizar Moissanite Terminator 2, a Presidium multi tester and one of the Gem-A's new Multi Testers. I then proceeded to test all the stones with all three testers under two sets of conditions. When I looked at the stones originally I noticed they weren't very clean, so I made sure I did my first set of tests on the stones in their original condition and did not clean the stones or the tester. For the second set of tests I ensured that prior to testing, the surface of each stone was cleaned with a soft cloth, the tip of the tester was cleaned, and that the items were allowed to reach room temperature, as per the instructions.

The results were shocking — at least to me, anyway. When the testers were used on dirty stones they had a mean failure rate of approximately 41% on diamonds... even the 'expensive' testers. This meant that anyone operating one of these testers without following the instructions correctly (as I know many people do) could, up to half the time, dismiss a diamond as an imitation. All of my testers (excluding the shop's tester) fared pretty well on synthetic moissanite, even when used incorrectly — 90% of the time spotting the synthetic moissanite. However, when used correctly (i.e. just wiping the stone — I used no cleaning solution or ultrasonic on them — as well as running the tip of the tester over a piece of card or paper as per the instructions), the accuracy of both the Presidium and Gem-A Multi Tester was 94%. It is worth noting that neither the Gem-A nor the Presidium tester failed to spot a synthetic moissanite when the stones were tested in more than one area of the stone.

At this point I went back to the client with my findings and explained everything I'd done — and here is when it got really interesting. Since my initial visit they had had more discussions with the staff member about how this had happened. It seemed that as all of the items had been bought from a vendor that the client had bought many items from in the past (all of which had sold on well), the staff



Diamond (left) and synthetic moissanite (right). © Gem-A.

Tester	Tester			
	Presidium dual	Gem-A dual Multi Tester	Mizar Moissanite	Store dual
Diamonds tested	22	24	17	12
Diamonds ID'd correctly	8	12	13	9
Diamonds ID'd as non-diamond	5	1	2	2
Diamonds ID'd as diamond and something else	9	11	2	1
% accuracy on diamonds	36%	50%	76%	75%
% diamonds ID'd as non-diamond	23%	4%	12%	17%
% diamonds ID'd as diamond and other stone	41%	46%	12%	8%
Moissanites tested	54	54	49	54
Moissanite ID'd correctly	53	48	47	32
Moissanite ID'd as diamond	0	0	2	14
Moissanite ID'd as moissanite and something else	1	6	0	8
% accuracy on moissanite	98%	89%	96%	59%
% moissanite ID'd as diamond	0%	0%	4%	26%
% Moissanite ID'd as moissanite and other stone	2%	11%	0%	15%

All moissanites tested were synthetic

member hadn't tested any of the stones with their (faulty) diamond/moissanite tester. As the client had bought many items from the vendor in the past and had always had a good deal and made money from selling them on, the staff member hadn't tested any of the stones with their diamond/moissanite tester. The client was also intrigued as to how I was so certain the stones were synthetic moissanite if the machine didn't tell me they were, to which I replied "because they look like synthetic moissanite".

After this whole process I came to a couple of conclusions: firstly, always follow the instructions on the equipment — they are there for a reason and this equipment that we trust so much won't work properly if we don't. Since this trial I have talked to a lot of people about diamond testers and found that many of them rarely use them as per the instructions, and many don't realize the importance of cleaning stones and testers for accuracy. Secondly, it was very clear that you can't just put your trust in testing equipment. You must learn to look at things; educating yourself and your staff is key. I remember when I first heard about synthetic moissanite over 15 years ago, my boss at the time was petrified. It was claimed that we would never be able to tell the difference between synthetic moissanite and diamond, and that we wouldn't be able to buy diamonds second-hand again. Fifteen years on and I can spot a synthetic moissanite in as many paces, and in under two seconds. This is because (and this may seem overly simple) synthetic moissanite looks like synthetic moissanite. What it does not look like is diamond. I don't expect a consumer to be able to immediately see the difference, but we are professionals. This is our job. We look.

When you look, the first thing you see is synthetic moissanite's (extremely) high dispersion — it's like a disco is going on inside the stone, and this is what I spot within seconds that makes me suspicious that its synthetic moissanite. The second is colour; synthetic moissanite often has a slightly odd greenish tinge to it that I haven't seen in diamond, although synthetic moissanites are now treated to appear as white as E-F colour. The next thing to look for is the finish of the stone; although synthetic moissanite is almost as hard as diamond (9.5 on the Mohs' scale), with experience you can see the difference in the facet junctions and edges; they appear slightly softer and rounded in synthetic moissanite. In older synthetic moissanites you may see characteristic inclusions of fine lines radiating out slightly like spokes of a wheel or coming straight down from the

Tester	Tester			
	Presidium dual	Gem-A dual Multi Tester	Mizar Moissanite	Store dual
Diamonds tested	24	17	7	12
Diamonds ID'd correctly	23	17	7	11
Diamonds ID'd as non-diamond	1	0	0	1
Diamonds ID'd as diamond and something else	0	0	0	0
% accuracy on diamonds	96%	100%	100%	92%
% diamonds ID'd as non-diamond	4%	0%	0%	8%
% diamonds ID'd as diamond and other stone	0%	0%	0%	0%
Moissanites tested	54	54	54	54
Moissanite ID'd correctly	52	50	53	31
Moissanite ID'd as diamond	0	0	1	9
Moissanite ID'd as moissanite and something else	2	4	0	14
% accuracy on moissanite	96%	93%	98%	57%
% moissanite ID'd as diamond	0%	0%	2%	17%
% moissanite ID'd as moissanite and other stone	4%	7%	0%	26%

All moissanites tested were synthetic

table, but this is much rarer in modern stones as the quality of the product has been improved to remove much of this. Finally, the deciding factor is double refraction; when you view the back facets of the stone at a slight angle through the kite facets you can see that all the lines are doubled, even in small stones.

The key to knowing the differences is exposure to material; you can't just read it in a book or online. You have to hold these stones in your hand and look at them. Once you've seen a few you recognize the key characteristics and you will never be fooled again.

So please, don't assume that just because someone has always given you good product in the past that they will continue to do so. It is your money and your reputation and you must make sure that you check *everything*. You also need to keep learning; get exposure to the material and learn what to look for. Gem-A offers a one-day workshop — 'Understanding diamond simulants' — which will teach you the key differences between diamond and its simulants and how to recognize these stones in loose and mounted jewellery. Lastly, invest in decent equipment. The new Gem-A Multi Tester is, in my experience, as effective as more expensive models — just make sure you follow the instructions. Most importantly, you must always look before you beep. ■



Presidium Multi Tester (above) and Gem-A Multi Tester (right).

Gem-A's 'Understanding diamond simulants' one-day workshop will run on Friday 20 March and Friday 25 September 2015. Workshops are £120 for Gem-A members, Gem-A students and BJA and N.A.G. members, and £150 for non-members.



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Gem-A

INSTRUMENTS



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Now you can more accurately describe, grade and price your coloured gems with Gemworld's **NEW** *The World of Color* book, a colour communication system based on Munsell – only £300 from Gem-A Instruments.

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Understanding Gems

Join us.



Treasures of the Salsigne mine and Cue's cute 'fluffy' nuggets

Joanna Angelett, of The Angelett Gallery, takes us on a trip to the Salsigne mine — Europe's only open-pit gold mine — to find the rare mineral pushcharovskite.



1 and inset: Salsigne mine, France.

SALSIGNE

The French Salsigne gold mine has many wonders — not only is it surrounded by the breath-taking beauty of the Midi-Pyrénées, but it is also host to 90 minerals (in addition to gold, silver and copper), and is the only open-pit gold mine in Europe (1).

In spite of the fact that the gold rush and glory of Salsigne mine are already in the past, it still remains a place of interest for mineralogists from around the world; for the restless collectors this gold mine, hidden between the fabulously beautiful green hills, is a treasure trove of numerous mineralogical samples.

Salsigne mine is located on the edge of the attractive (but very small) town of Salsigne, with the next largest-known town nearby being Carcassonne, known to everyone in France for the fairy tale-like beauty of its castle, inside of which is also located a museum with archaeological and mineralogical displays.

It was decided that we would take one week's break from the strenuous work in our jewellery design business in Hatton Garden and head from the centre of London to the hills of the Midi-Pyrénées, close to the border with Catalonia. Our excursion was not just for the break — Salsigne is also a source of the very special and rare

mineral pushcharovskite, which, besides being a geological rarity and found only in four places in the world, is a relatively new mineral, having only been discovered 20 years ago. What makes it even more special is the fact that it was named in honour of Dmitry Pushcharovsky (2) — a scientist world-renowned for his fundamental works in the field of crystallography, who has worked as a researcher in universities in Switzerland, America and Australia, and with whom I have been in correspondence for many years.



2: Dmitry Pushcharovsky, after whom 'pushcharovskite' is named.

PUSHCHAROVSKITE

Pushcharovskite (left, 3) was discovered in 1995 in the Cap Garonne (Var, France) gold deposit in its oxidation zone of copper (Cu) and lead (Pb), by Dr H. Sarp, head of the Department of Mineralogy of the Swedish Museum of Natural History. Its crystals, with



Pushcharovskite. Image © Georges Favreau, courtesy of Mindat.org.



3: Pushcharovskite in matrix from Salsigne mine.

microscopic needles of 0.5 mm in length and 0.04 mm in diameter, form in splices up to 1 mm and their colour varies from green to colourless, and can be dissolved only in hydrochloric acid (HCl). The study of the atomic structure of this new mineral was carried out with the use of Synchrotron radiation at Sci-Tech Daresbury scientific research laboratory in Daresbury, Cheshire. Although the atomic structure is important to a crystallographer, for a designer like me the surface's texture is the more interesting characteristic of the mineral. I wondered what this mineral looked like and how, if at all, it would be possible to use it as a gem set in jewellery.

Arriving in the town of Salsigne, we soon found ourselves a guide; a local resident called Mr Pabrid, who was busy dragging a number of bright yellow gold pumpkins from his garden to his car. We would never have completed our expedition so successfully without Mr Pabrid's assistance; he showed us how to reach the mineralogical side of the pit containing the rare mineral pushcharovskite, where there was excess material available to the public. We found plenty of fascinating minerals here — some of which we have donated to Gem-A's mineral collection, along with a sample of rock from the gold deposit of Western Australia, which shows very similar colour characteristics to the rock from Salsigne. Specific, ochre-like coloration, identical to both of these minerals from different sides of the globe (although they possess different properties),

indicated the fact that they were saturated with similar combinations of metal oxides, the presence of which is typical for highly mineralized soils containing a range of metals, including gold as either a concomitant or dominant element.

COMPARISONS WITH WESTERN AUSTRALIA

Western Australia, with its gigantic gold-bearing area called the 'goldfields' (larger than the whole of France), is a perfect example of the maximum degree of mineralization in the ground, and is very similar to Salsigne's highly mineralized ground.

The goldfields stretch in a 1200 km long shining band across the Western state from south to north. The incredibly rich 'golden line' starts from the town Norseman, which was named after the horse Hardy Norseman, who 'tipped over' the large nugget, which led to the active search for gold by its owner Lawrence Sinclair. This search was successfully completed in 1894 with the discovery of the colossal 'gold reef'. The golden line ends with a unique deposit of gold in quartz at Marble Bar, located within 126 miles of the subtropical Port Headland.

Goldfields have several bright points — the 'Capitals' of gold mining — such as Marble Bar, Kalgoorlie-Boulder and the charming 'little golden capital' of Cue, which, unlike Salsigne, is full of life, plans, and of course, gold. Despite the fact that Cue's Murchison Shire has already produced far more gold than the French mine, it still has plenty of glittering treasure to mine.

Only one of Murchison Shire's numerous deposits, discovered near the town of Sandstone, produced more than 40 tons of gold, and here it is not just big and middle-sized companies that still make their profit, but also prospectors with metal detectors are



4: Gold 'fluffy' nugget from Western Australia.

trying their luck, often finding nuggets that have been cast by nature in different shapes, including the interesting, crystal-like ones, and also very rare 'fluffy', yellow nuggets, locally called 'chickens' (4). The goldfields are fantastically rich not only in gold, but also in unique beauty — inherent in the infinite expanses of Western Australia.

MINER'S RING

Our visit to Salsigne mine was a successful one, and from the material collected on the trip a ring (5) was created. Named 'Miner's Ring', it is from The Angelett Gallery's 'Geological' collection (The Angelett Gallery, Hatton Garden, London), and features pushcharovskite and gold from the goldfields of Western Australia. ■



5: 'Miner's Ring' from the 'Geological' collection by The Angelett Gallery, featuring Pushcharovskite and gold from Western Australia.

For more information about pushcharovskite visit mindat.org: www.mindat.org/min-7258.html.

All photos courtesy of Joanna Angelett

To see more of The Angelett Gallery's collections visit www.angelettgallery.co.uk



The road beyond Tucson

In the first of a regular feature on ethics in the gem and jewellery industry, Greg Valerio, jeweller, activist and Gem-A ethics advisor, stalks the aisles of the 2015 AGTA GemFair Tucson, asking one very important question.

I climb into Marc Choyt and Helen Chantler's car, ankle-deep in snow and we skid around the corners of Sante Fe's slushy streets. We set the 'sat nav' to the Tucson gem show, some seven hours south into the desert of Arizona. One of the biggest gem shows in the world, the AGTA GemFair Tucson is a Mecca for all lovers of coloured stones. As we drive we talk. The straight Roman-like desert roads disappear over the horizons of New Mexico and Arizona, and as the Interstate unfolds, it is in some way a fitting metaphor for the ethical jewellery challenges Marc and Helen, owners of Reflective Images Jewelry, and the thousands of other small and medium-enterprise (SME) jewellers will face in the USA. Here the corporate business culture of The Responsible Jewellery Council is trying to dominate ethical definitions and dialogue around ethical performance in jewellery, but currently does very little to

serve the real rank and file of the industry with its 'one size fits all' philosophy. It is simply too elitist to be contextual and appropriate. Our ethical jewellery destination is always just over the horizon, seemingly always just out of reach, but we take encouragement



Greg Valerio (left) and Mark Choyt on the road to the Tucson gem show. © Greg Valerio.

from the strides that have recently been made in securing Fairtrade gold and the equitable economic settlement for the small miner and the mine-to-market traceability for jewellers and their customers. But the endless desert road remains an indication of the distances we must continue to travel to achieve a jewellery story that has genuine integrity in its soul.

Conflict minerals and the politicized nature of so many well-intentioned initiatives for the jewellery sector colours our road with a palette of mute tones and questions. As we talk we continually return to the simple truth that, for ethical change to have any meaning at all, it must be rooted in transparency and traceability. Put another way, mine-to-market provenance must become the foundation on which we build a new consumer narrative; that, in turn, will cradle the financial value of our industry. If De Beers could manufacture a value associated to diamonds by removing the true story of the negative social impact of how that product came to market, why can we not do this in reverse? Can we create a value chain in coloured gems that puts the dignity, integrity and economic sustainability for the artisanal miner back into the narrative? Please remember the artisanal stone miner dominates the delivery of coloured gemstones to the jewellery trade. Without them we have no colour. They are the original source of our love for gems and on their giant shoulders we all stand.

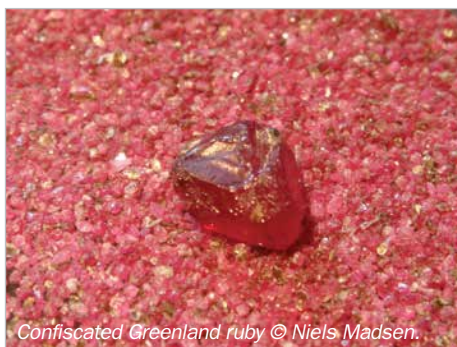
Arriving in Tucson is both thrilling and sobering. I am thrilled by the creativity that companies invest into their stones. The myriad colours, sizes, cuts and range of non-gem genius excites me. Some of the cutting is more a philosophical interpretation on reality and the human condition, with cuts by Victor Tuzlukov entitled 'The Great Sacrifice', 'The Mystery of the Universe' and 'Touching to the Perfection'. The first morning, armed with only the simple question of "Where do the stones come from?", I took to the show floor and started talking to booth holders. The sobering reality begins to sink in. The ethical question for the overwhelming majority of the attendees is simply not there. The quizzical replies from the owners of the booths ("What are you talking about, the source?") unveils the scale of the ground that will need to be covered if the gemstone industry is to arrive in the twenty-first century world of consumer accountability. I'll admit gemstones have an

advantage in as much as country of origin still has a premium when it comes to selling the bigger gem-quality stones. I talk to a booth owner about his 14 ct Burma ruby. I am shown two certificates that cover the stone, both stating 'Country of origin: Burma', but when I ask the owner of the stone what the criteria is for determining that this stone is from Burma, he is unable to refer to anything other than "that the paperwork says so". He cannot tell me what mine it comes from, how the workers are treated, and whether the miner received a fair price. Nothing. These questions are important to me, as they should be to everyone; it was gemstones that turned me from a small UK silver jeweller in the early '90s to a jewellery activist as I witnessed child labour, three-generational slave labour, unbearable working conditions, worker exploitation and child labour in cutting factories — all in one day's worth of investigation in Jaipur, India.

Over the next few days I met miners from Greenland who continue to face systemic prejudice from their government whose implementation of the mineral policy on gemstones is a long way short of impartial, favouring foreign companies over local people. Simply put, local Greenlanders and Inuit are now criminalized if they pick up a gemstone and seek to cut, polish and make a living from the gems of their own land.

At the Tucson show I observed numerous dealers wandering round with pockets full of stones, waxing lyrical about the colour and luminosity of 'Afghan emeralds' and 'Ceylonese sapphire', but never whose hand they come from. It would seem that gemstones, like diamonds and gold, have fallen under the spell of the jewellery marketing guru's number one rule of marketing: don't talk about source.

Some might suggest I am being overly negative in my assessment and from a certain point of view I can understand why. The mantra "We don't need change" is so



Confiscated Greenland ruby © Niels Madsen.



AGTA GemFair Tucson trading floor. © Greg Valerio.

If De Beers could manufacture a value associated to diamonds by removing the true story of the negative social impact of how that product came to market, why can we not do this in reverse? Can we create a value chain in coloured gems that puts the dignity, integrity and economic sustainability for the artisanal miner back into the narrative?

deeply ingrained in the world view of the jewellery industry that any form of questioning will naturally be seen as an attack on the industry. Looked at from another angle however, there is a whole new emerging generation of jewellers and customers who are asking the source question. It is simply not enough anymore to talk about the technical and scientific data of a stone. To say "Trust me, I deal direct with the miners" and then seek to distract with the inherent beauty of the stone, is to employ the sleight of hand and misdirection of a magician. I heard one dealer say: "A stone should only be judged by its inherent beauty, and by nothing else." Yet, as Tolstoy says: "It is amazing how complete is the delusion that beauty is goodness."

As I return home and reflect, I am encouraged. Why? Because Gem-A, the providers of education to the next generation of jewellers, designers and gemmologists, recognizes that the industry must change,

that it must move towards greater transparency and traceability of supply. I am encouraged because consumers are starting to wake up to the social and environmental issues associated with extraction industries. I am encouraged because there is a new generation of jewellers, gemmologists and designers, for whom ethical provenance and source are as important as cut, colour and clarity, and who will actively spend their money on these kinds of stones. I am encouraged because there are a number of pioneering gemstone mining companies and co-operatives who are willing to work with Gem-A on accrediting sources. But perhaps the most significant of all is that it is simply the right and moral thing to do. Living in the past is reserved for historians and the gurus of nostalgia. A gemstone industry fit for the twenty-first century must have a verifiable accreditation process to underpin the overused phrase: "You can trust me, I deal direct with the miners." ■

The 17th FEEG Symposium

Charles Evans FGA DGA reports on the FEEG Symposium, held in Brussels in January.

Régine de Kerchove, President of the Société Belge de Gemmologie (SBG), addressing delegates.



In 1995 a circle of dedicated gemmology educators, representing a number of European countries that were fortunate enough to have respected and well-established national-level gemmological education resources, were able to realize a dream.

For a number of years they had met and discussed the possibility of creating and supporting some of the smaller European national gemmological bodies. The idea was to create a gemmological qualification that was recognized throughout Europe. The standard would be high, so that it would never be seen as 'lesser' than any of the existing qualifications. The qualification would be studied for in English, as it was acknowledged by all present that, worldwide, English was ultimately the language in which any serious academic discussion on gemmology would be conducted. So it was that the Federation for European Educators in Gemmology (FEEG) was born — with the general consensus being that the acronym is pronounced as a word and with a hard 'G'.

On the very weekend that the Eurostar service chose to misbehave, Amandine Rongy FGA GG and Charles Evans headed to Brussels to attend the 19th General Assembly of FEEG. It was hosted by the Société Belge de Gemmologie (SBG) — the Belgian Gemmological Society — at the Royal Windsor Hotel and at its teaching premises a short cab ride away. The SBG is a non-profit organization established in 1961 to advance the study of gemmology in French-speaking Belgium and has been a member of FEEG since 1999.

As one of the founding gemmological associations, Gem-A is proud to play host to the 18th FEEG Symposium and Graduation Ceremony on 21-22 November 2015, which has been timed to coincide with our Gem-A Conference. The usual date of the FEEG Symposium (January) has thus been brought forward by two months, and we are grateful to FEEG for allowing us this opportunity (the final re-writes of FEEG exams are in mid-October and there is very little time for marking and appeals before attendees will need to book their tickets and accommodation in London.)

Gem-A is excited to be hosting the 18th Symposium; not only will it give our conference a new and interesting twist, it will also open the doors to gemmology in Britain for FEEG graduates.

Ms Régine de Kerchove, in her role as president of the SBG and ably supported by her staff and enthusiastic volunteers, put together a wonderful Symposium on the Saturday with a sparkling list of guest speakers, who all provided the new crop of FEEG graduates with a reason to be proud of their field of study as well as their achievement in completing the course. In the spirit of FEEG, the event provided all attendees — professional, amateur or aspiring — with a base for stimulating exchange and discussion. The Friday was taken up by meetings of the Examinations Committee, followed by the AGM.

Points of discussion were the proposed website and branding of FEEG, in which Gem-A's own Miles Hoare has invested much creative and technical expertise. Loredana Prospero was reinstated as president of FEEG, by popular demand. Amandine Rongy was instated as the new secretary, with Waultraud Winkler from Austria standing down after a number of years of sterling service. Graduate numbers were down for 2014, from 73 in 2013 to 55, but this was not seen as problematic, with steady numbers being the long-term trend and 2013 simply being an exceptionally good year. Finances were healthy enough to approve the purchase of a preferred domain. In all, it was with a warm and contented sense of achievement that we all sat to enjoy a fine meal, courtesy of our hosts, in one of Brussels' better restaurants.



The Saturday symposium kicked off with Hanco Zwaan giving an appropriate and inspirational message for all the new graduates on just how wide a world of gemmology could be. Talks followed the theme of technical study and work in the field of gemmology with Pierre Lefevre, Emmanuel Fritsch, Wolf Kuehn, Stefanos Karampelos, Olivier Segura, and Eddy Fleesdrager all delivering most interesting and thought-provoking presentations. Francesco Mazzero was the last speaker with a fascinating collection of photographs that documented his travels and experiences around the world. The day finished with the proud new graduates being presented with their awards, ably supported by excited family members.

Of course, there had to be a hitch somewhere... the Eurostar, having just recovered from a Friday fire in one of the tunnels, then had to cancel a number of services on the Sunday and ours was one of them. There are worse places in the world to be stuck than Brussels. They have the finest of chocolate, beer, art and architecture. How could it not be a 'fun' delay?! ■



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