

# Gems & Jewellery

April 2013 / Volume 22 / No. 2



Gems of BaselWorld

Highlights of the  
Tucson Show

Crystal Questions



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THE GEMMOLOGICAL ASSOCIATION  
OF GREAT BRITAIN



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# Gems&Jewellery April 13

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## Brilliant fashion

Recently I had the good fortune to examine several large diamonds in private hands, including two 'historic' stones which can be traced back several centuries to Indian mines. Both the latter had been recut in recent times, a feature that started me pondering. When the famous blue Wittlesbach diamond was purchased by Laurence Graff in 2008 and then recut slightly to improve its colour and clarity, there were some that saw this act as akin to repainting a Rembrandt. I have sympathy here, and mourn the fact that many countries lack legislation to prevent the destruction or modification of portable items deemed to be of historic or artistic importance. There is nothing to stop me burning my Rembrandt.

However, there was another aspect about recutting historic diamonds that intrigued me. What factors determine how we recut them, and are those factors really valid? I can best explain this by citing a far earlier observer, an unknown correspondent in *The London Review* a century and a half ago describing his impressions on seeing the Koh-i-Nur exhibited at the 1862 Great Exhibition. The Koh-i-Nur had been recut from its ancient Indian form 10 years earlier. He refers to the practice of ruining diamonds by cutting and notes that the Koh-i-Nur was "no more the luminous mound which delighted the eyes of the Moguls". More precisely he stated that it "shows a huge face of diamond, but in order to attain this vulgar attribute of size or 'spread', it has been cut so thin, that it is not a brilliant in the true sense of the word: it is a thin slab of diamond with facettes [sic] cut on it in imitation of those of a brilliant". In his opinion the brilliant style of cutting was not even suited for diamonds over about 50 carats in weight. Large facets reduced play of colour, he said, and made a stone look glassy; over 100 carats the brilliant style was really not effective at all.

This is an anonymous opinion, and an old one at that, but it should make us think. Large diamonds today are cut or recut, usually in a version of the brilliant style of cutting, so as to optimize colour and clarity. That's what the market demands. But is that the whole answer? Sparkle or scintillation might not be quantified on a lab grading report, but are they important to the diamond buyer? Might not a more multi-faceted look bring out a different and potentially more appealing look to a large diamond? I don't know how much work has been done on ray tracing in large diamonds of varied cuts and shapes, but I do wonder if future generations might look back at how we cut large diamonds now and judge us to be wanting in so diligently serving the gods of clarity and colour. The brilliant cut is a fashion, not a universal truth.

Jack Ogden

### Cover Picture

Royal Butterfly Brooch by Cindy Chao and donated by her to the Smithsonian Institution, Washington (see page 8). Photo by Cindy Chao



Published by  
The Gemmological Association  
of Great Britain (Gem-A)  
27 Greville Street, London EC1N 8TN  
t: +44 (0)20 7404 3334  
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e: editor@gem-a.com  
w: www.gem-a.com  
Registered charity no. 1109555  
Copyright 2013 ISSN 1746-8043

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# Gem-A news

Gem-A CEO James Riley FGA gives a round-up of what's been happening at Gem-A.

## Design Awards

It's always a pleasure to attend award ceremonies but doubly so when the people winning the awards are young or genuinely among the best in their particular field. The Goldsmiths' Craft and Design Council Awards 2013 fell into both categories. Gem-A, a sponsor of the event for many years, judges and presents the Gem-A Diamond Scholarship Awards — an annual scholarship for Gem-A's one-week Diamond Practical Course. The scholarship is given to young designers who show flair and originality in the use of gemstones and diamonds in their design. What makes these designers special is that they are embarking on their careers. What they might lack in commercialism is balanced by an uninhibited approach to design, allowing their true creative side to be given full reign. For many it is their first visit to Goldsmiths' Hall and they have

the opportunity to mix with the real stars of our trade. By stars I mean leading craftsmen, not stars from the pages of *Hello* and *OK!* I was privileged to judge our award and we ended up presenting two scholarships.

The Gem-A Diamond Scholarship Award winners were Katie Jamieson and Stasia Tereszczuk, chosen from a very good selection of designs. It was not an easy choice, but both winners demonstrated something out of the ordinary which caught our eyes. Their designs showed originality and interesting use of gemstones. Stasia Tereszczuk had designed a unique piece exploiting the optical properties of andalusite, while Katie Jamieson had submitted a collection of 3D jewellery. Shown here are her matching ring and earrings in faceted stones and hand-blown frosted glass.

Each year all the award-winning entries are exhibited along with a selection of



Stasia Tereszczuk's design: an andalusite and sapphire pendant. Copyright The Goldsmiths' Craft and Design Council, photo by Lee Robinson.

## Gem-A Shop

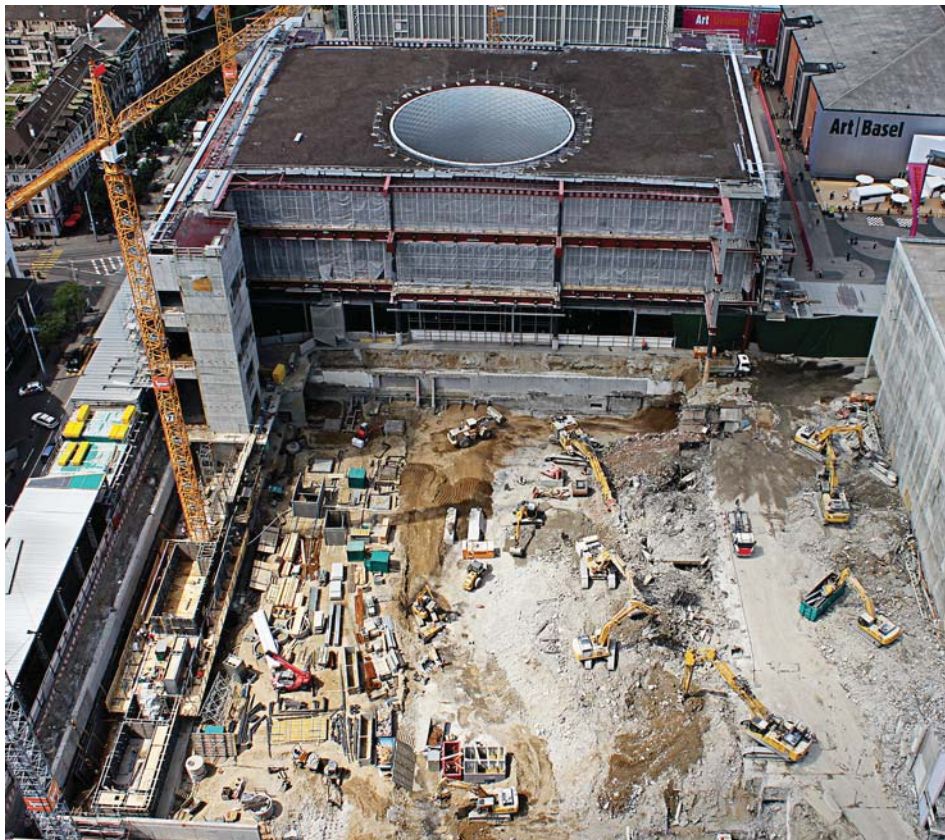
Don't miss this month's **SPECIAL OFFERS** on instruments and books from the Gem-A Shop.

Visit [www.gem-a.com/shop.aspx](http://www.gem-a.com/shop.aspx)

entrants' work at what is normally a four-day exhibition at Goldsmiths' Hall, London. The exhibition is open to the public, free of charge. There are categories for Junior — if you are serving a full-time apprenticeship, or on a recognized course of full- or part-time study and below the age of 30 on the final closing date for entries — and Senior if you are over the age of 30 on the final closing date for submission of entries. There is no upper age limit. More than one design can be submitted and there are various classifications for submissions. Thinking of entering for the 2014 Awards? We'll see you there! For more details visit: [www.craftanddesigncouncil.org.uk](http://www.craftanddesigncouncil.org.uk)

## Back to Basel

BaselWorld 2013 is the showplace for 1,800 watch, jewellery and precious-stone companies from around the world. It is Europe's greatest watch and jewellery trade show and attracts some 100,000 international visitors. This year between 25 April and 2 May BaselWorld will show off its new hall complex and, of particular interest for *Gems&Jewellery* readers, present the world's top diamond, coloured gem and pearl dealers in the redesigned Hall of Elements for the first time. We'll be there too. This is the perfect time for Gem-A to exhibit again in Basel after a



Work on the new exhibitions halls, Basel. Copyright BaselWorld.

break of 20 years. It is not easy to get booth space at BaselWorld, let alone a good location, but as the leading jewellery show in Europe and surpassed by only

Hong Kong and Las Vegas, it is somewhere that everyone goes to or aspires to go to. As the international enrolment on our courses grows, it is important to meet past, present and future students, show off what we do, keep tabs on the industry to spot trends and get feedback so our education can be improved. The Gem-A booth is N12 in Hall 3.1 so if you are a Gem-A Member — or a past, present or future student — come and say hello. I look forward to meeting you.

James Riley



Katie Jamieson's ring and earrings in faceted stones and hand-blown frosted glass. Copyright The Goldsmiths' Craft and Design Council, photo by Lee Robinson.

# Gemstone news

Jack Ogden FGA looks at developments in the UK and international gem markets.

## Gem market round-up

Gemfields' CEO, Ian Harebottle, recently told the *Wall Street Journal's* Market Watch (8 February 2013) about his ambitions for the company's future. He noted that worldwide polished coloured gemstones were only an estimated \$2 billion market in 2012, compared with a \$71 billion for polished diamonds. With better marketing of coloured gemstones Harebottle reckons that the market for them could grow to \$10 billion in 10 years. Gemfields, with emerald mines at Kagem, Zambia, currently accounts for around 20% of the world's emerald production.

Research and Markets ([researchandmarkets.com](http://researchandmarkets.com)) has recently published its *Global Gems and Jewellery Market Forecast and Opportunities, 2018*. The key findings are that currently the US is the largest jewellery market in the world and more than 50% of that is dominated by diamonds. Taken globally, the jewellery market is improving and a compound annual growth rate in excess of 5% is expected over the next five years, surpassing US\$ 257 billion in 2017. This growth will be primarily driven by the Asia Pacific and the Middle Eastern markets.

This ties in with the recent announcement from the Thai News Agency that Thai exports of gems and jewellery are likely to grow by 5% in 2013. With regard to the recent jewellery show in Shenzhen, there are reports that the high-end jewellery market in China seems to be recovering after a slowdown in 2012, and that the Chinese market is increasingly open to new gemstones. The US has its own moment of glory. A long and thoughtful article in the *New York Times* on the Tucson Shows (20 February 2013), and one for once not written from a trade perspective, quoted a Rhode Island jeweller at the show as saying: "Probably 70% of the world's coloured gemstones on the market pass through Tucson during the month of February." It is not clear where that figure comes from but, if it is anywhere close to the truth, it is staggering statistic.

It is not smiles all round, though. Gem and jewellery exports from India fell slightly in January this year compared to last year, with less than vibrant demand in the US and Europe being blamed (Provide. NDTV.com 22 February 2013). It is worse next door. According to a report in *The Express Tribune* (9 February 2013), in Pakistan "The gemstones industry has been on a constant decline due to a spate of violent terrorist activities in the heartland of the industry. However, stakeholders also blame 'pitiable performance' on the part of the Pakistan Gems and Jewellery Development Company (PGJDC), which they say has 'destroyed' the sector." In turn a former director on the PGJDC board accused the government "of interfering in the functioning of the company and replacing board members with political appointees".

## Distinguishing sapphires from Kashmir and Madagascar

In the latest *Facette*, the newsletter (January 2013) of the Swiss Gemmological Institute, SSEF, director Dr Michael S. Krzemnicki discusses the origin determination of sapphire and, in particular, the challenge of distinguishing Kashmir sapphires with some of those from Madagascar which can have very similar characteristics. Focusing on traditional gemmological techniques, he states that "Luckily, a comparison of internal characteristics between sapphires from Kashmir and similar looking sapphires from Madagascar often reveals subtle but nevertheless valuable differences." He goes on to say that in sapphires from Madagascar the exsolution particles — 'dust' patches and tracks — are more distinct and better defined than in Kashmir sapphires. Also the Madagascan stones usually show much denser colour, and growth zoning which frequently dominates the stone along one direction.

The full report can be found here: [http://www.ssef.ch/fileadmin/Documents/PDF/640\\_Facette/SSEF-FACETTE-20.pdf](http://www.ssef.ch/fileadmin/Documents/PDF/640_Facette/SSEF-FACETTE-20.pdf)



Particles and dust lines in a Kashmir sapphire (top) compared with the 'millipede'-like structures in a Madagascan stone (bottom).

Photos courtesy of SSEF.

## Lab group formed

At the end of 2012 independent gem labs from around the world met in Bangkok to inaugurate the International Consortium of Gem Testing Laboratories (ICGL), an organization formed to promote excellence in the field of gemmology. They foresee greater communication and cooperation between independent labs with joint research projects as one aim. The ICGL was conceived by Dr Jayshree Panjikar (PANGEMTECH) and Henry Ho (AIGS) and its first newsletter was released at the 2013 Tucson Show.

## Whiter than white

For some time there has been concern that there has been a tendency by some auction houses in particular to apply the term 'Golconda' too widely to Type IIa diamonds. The name 'Golconda', referring to the old Indian diamond trading centre of that name, is seen to command a price premium, but not all type IIa diamonds are from Golconda. In its recent newsletter the Gübelin Gem Lab has confirmed that its present policy is to apply the term 'Golconda' to type IIa colourless diamonds only if they weigh more than 5 ct and have D colour and IF or potentially IF clarity. The stones should also display "an antique cutting style" and show the signs of wear and age "expected of a diamond that has been around for a long time". This does not preclude stones identified by the Gübelin Gem Lab as Golconda from being slightly repolished at a later date as long as their appearance has not been modified significantly.

Even so, the industry does need to decide what it means by 'Golconda' as, so far anyway, definitive origin determination for diamonds is beyond our reach. Full text of the Gübelin statement at: <http://www.gubelingemlab.ch/News/Current-Newsletter.php>

## Living in syn

There has been much media coverage of Amsterdam's Royal Asscher diamond company's introduction of its 'Rebel Chique' range of synthetic diamond-set jewellery. The range of rings, pendants and earrings is available in several colours, including colourless (although the photos on the website do look as if the different colours have been created in Photoshop). Mike Asscher says: "Rebel Chique opens a new world for a next generation of diamond lovers, tapping into an entirely new mentality and experience." As a guide, according to the website, a platinum-set ring with a colourless 0.52 ct brilliant-cut diamond, described as of VS1 clarity, and pave-set synthetic diamond shoulders sells for €6095 (about £5250, \$8000).

Meanwhile in India the Gems and Jewellery Export Promotion Council (GJEPC) with the Indian Diamond Institute (IDI) and the Gemological Institute of India (GII), held a seminar on 16 March aimed at making diamond manufacturers and dealers more aware of the threat posed to their industry by synthetic diamonds.



*Purple colour flashes and bubbles in a lead-glass-filled ruby. Copyright Gem-A, photo by Jack Ogden.*

## Rubies and rants

In a recent interview for the *Daily Ticker* for Yahoo Finance (8 February 2013) for an article titled 'Secrets of the Jewelry Industry: What Your Jeweler Won't Tell You', jewellery expert and author Antoinette Matlins FGA spoke about treatments, rubies especially, and urged customers to ask three questions when buying a ruby: "Is this ruby treated?", "How was it treated?" and "Is there lead glass in the ruby?"

Among the numerous reader comments that followed, mostly unfavourable to the jewellery industry to say the least, one person simply said: "If you are not a gemologist how do you know you are getting the real stuff?" Another commented: "Never buy a set stone. Always loose, then have it set. Have the stone appraised before you buy. Bring a gemologist with you and pay them. Worth it." The comments — often rants — that now trail after most web news stories can make irritating reading, but they do give us all very useful insights as to how some consumers think. Companies anxious to raise their brand image are often advised to ask themselves what would be the worst thing their customers could say about them. Reading comments following gem or jewellery-related web article can provide us with lots of clues.

## Tanzanite 0.5

The 2010 Tanzania Mining Act required that gemstone mining in the country should be carried out primarily by Tanzanians, but existing foreign companies working in the country would be able to have their mining licences renewed in return for their listing on the Dar es Salaam Stock Exchange and floating 50% of their shares to Tanzanians. This legislation obviously affects tanzanite miner Tanzanite One, but the current situation is unclear. According to the Government, talks are concluded and 50% shareholding will go to the Government. At the time of writing, however, Tanzanite One insists that although

## Gemstone News

### Gemstone News (cont.)

agreement has been reached in principle, talks are still in progress and that nothing has been finalized. (*African Review* 4 March 2013).

The 2010 Mining Act also imposed an immediate ban on the export of uncut tanzanite, the purpose being to create more employment for cutters and increase the added value of tanzanite to the country.

The effect that the new mining regulations will have on tanzanite and its availability and pricing is unclear. The Tanzanite Foundation's website now states that there is probably 30 years supply remaining at the mine, an upped estimate from a few years ago.

### Opals

Miners in the Australian opal mining town of Lightning Ridge in New South Wales, Australia, are complaining that a variety of factors, in part due to regulatory changes, have increased the costs of mining to the point where they might decide to stop mining (according to the Australian Broadcasting Corporation).

Meanwhile some 8,000 miles away, at a meeting at the end of February, the Ethiopian Ministry of Mines announced that in the previous six months Ethiopia had earned US \$288 million from the export of gemstones, which included opals "and other gemstones". This follows on from an announcement earlier this year that Ethiopia will soon ban the export of rough opal. (AllAfrica.com 26 February 2013).



Opal miners leaving town? The famous flying bus outside the Lightning Ridge Hotel. Photo Jack Ogden.

### Long in the tooth

Ivory has long been considered an organic gem material and in the past duly covered in gemmology books and courses. However, there has been an increasingly negative attitude to ivory jewellery in recent decades as conservation issues came to the fore. The scourge of ivory poaching is well known to the jewellery trade and



Cindy Chao's Royal Butterfly Brooch under longwave ultraviolet light. Courtesy of the Smithsonian Institution.

public alike, with its often disturbingly graphic media coverage — it is estimated that daily some 50 to 100 African elephants are slaughtered to meet demand. The demand comes mainly from Asia. Thailand is well known for its own elephant population and ivory from domesticated Thai elephants can be legally sold there. The problem is that, as campaigners point out, this legal trade can be used to launder illegal African ivory. So there was delight when at the recent Convention on the International Trade in Endangered Species (CITES) held in Bangkok, the Thai Prime Minister announced that she intends to amend national legislation to end the ivory trade and bring Thailand "in line with international norms". No timeframe was given. (Source: *BBC News* 3 March 2013)

### Butterfly

A beautiful butterfly has landed in a showcase at the Smithsonian's National Museum of Natural History in Washington (see cover and under UV light above). The 'Royal Butterfly Brooch', set with 2,328 gems is the work of Taiwanese jewellery artist Cindy Chao who donated the piece to the museum. The gems, totalling 77 ct, include coloured and colour-changing sapphires, diamonds, rubies and tsavorite garnets. Four large faceted diamond slices form the main parts of the wings.

### Market slide

US marketing company Harmon, who issue an email newsletter covering fashion trends for the jewellery business, recently said: "Slithering through the tents of fashion week, we are seeing a trend that is sure to leave you feeling a little cold-blooded. Skins of all types, and snakes in particular, will be a major trend for spring 2013." They suggest this is an opportunity to sell jewellery "with a naturalistic edge to it". Will we see a renaissance in the use of serpentine?



# Gem-A Calendar

## Workshop: Investigating gemstone treatments

Gem-A headquarters, London  
Friday 19 April, 10:00 to 16:30  
Gem-A / NAG / BJA members and  
Gem-A students: £80, Non-members: £100

## Gem Central

Gem-A headquarters, London  
Monday 22 April, 18:15 to 20:00  
Focusing on magnification:  
use of loupe 10x, 20x and microscope  
Students and members: Free  
Non-members: £5

## Gem-A Career Service

Gem-A headquarters, London  
Monday 13 May, 18:15 to 20:00  
Carry on teaching with  
Claire Mitchell FGA DGA  
Gem-A students and Gem-A members:  
Free, Non-members, non-students: £10

For further details of Gem-A events  
or to book go to [www.gem-a.com](http://www.gem-a.com)  
or email [events@gem-a.com](mailto:events@gem-a.com)

## Gem-A Midlands Branch Fluorescence

Birmingham University, Earth Sciences  
Department  
Friday 26 April, 19:00 to 20:30  
Refreshments from 18:30  
For further information please contact  
Georgina Kettle on tel: 07990 893768  
or email: [georgekettle@hotmail.com](mailto:georgekettle@hotmail.com)

## Gem-A South East Branch

A visit to De Beers Group headquarters  
Friday 17 May, 9:30 to 11:30  
17 Charterhouse Street, London EC1N 6PA  
This is your last chance to visit De Beers' headquarters in London before their move to Botswana later in the year. De Beers, established in 1888, has been the world's leading diamond company for more than a century; the De Beers' name is synonymous with diamonds, with unrivalled expertise in the exploration, mining and marketing of diamonds.

To register send an email to:  
[southeastbranch@gmail.com](mailto:southeastbranch@gmail.com)

## Show Dates

Gem-A will be exhibiting  
at the following shows:

### BaselWorld

25 April – 2 May 2013  
Stand No. N12 / Hall 3.1

### JCK Las Vegas

31 May – 3 June 2013  
Booth L116

### International Jewellery London

1 – 4 September 2013  
Stand J94

### Hong Kong Jewellery and Gem Fair

13 – 17 September 2013  
CEC Booth 3M046

### The Munich Show

25 – 27 October 2013

# Gemmological Conferences

## The Scottish Gemmological Association SGA Conference 2013

Peebles Hydro Hotel, Peebles, near Edinburgh, Scotland  
3 to 6 May 2013

Confirmed speakers and workshop leaders include Chris Smith, Clare Blatherwick, David Callaghan, Rhiannon Henderson, Alan Hodgkinson, Cigdem Lule, Claudio Milisenda, Jack Ogden, Ron Ringsrud and Stuart Robertson.

To book contact Pauline Jamieson, SGA Conference Organizer at:  
[membership@scotgem.co.uk](mailto:membership@scotgem.co.uk)

## The 5th European Gemmological Symposium

Leiden, The Netherlands  
15 to 16 June 2013

The Netherlands Gemmological Laboratory and the Dutch Gemmological Guild cordially invite gemmologists, jewellers and anyone else interested in gemmology, to the 5th European Gemmological Symposium that coincides with the 14th Dutch Gemmological Guild symposium.

To book go to: <http://science.naturalis.nl/nel>

# Gem 'talk' from Gary Roskin

Gary Roskin FGA presents a selection of recent gem news and comments from *The Roskin Gem News Report*. Here he looks at the latest talk on GemTalk, rock crystal jewels and the upcoming BaselWorld Show.

## Still talk on the 'Talk'

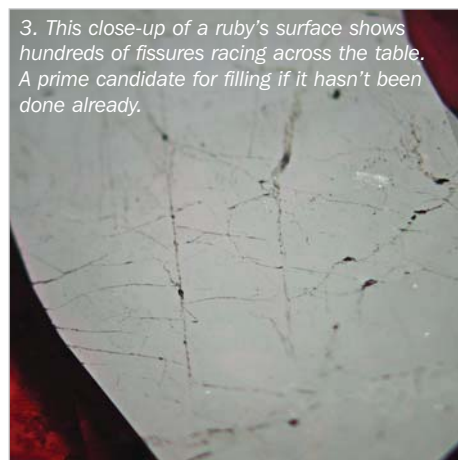
Before you turn the page thinking that this yet another feature about "what to call it", I will tell you that this is *not* about what to call it. This is about how to prove to your supplier or to your client that this is 'it'. The 'it' of course has to do with that 'stuff' everyone on GemTalk has been talking about — what to call this reddish/purplish highly fractured, non-gem-quality corundum that is subsequently filled full of high lead content glass to allow it to be used as a gem material. In other words... what some of us have been calling 'glass-filled ruby' (1). We're not going to revisit that, as this was a topic of discussion in *Gems&Jewellery* Spring 2011, Volume 20, No.1. But it's not surprising that we are still debating over what to call this material. It is still very prevalent in the jewellery industry, and is often unknowingly being sold as 'natural ruby' (2).

It is perfectly all right to sell this material, but one must be prepared to disclose the treatment, as well as all of the enhancements, not to mention the precautions for care and cleaning. The treatment is glass filling. The enhancements are as follows: a) to enhance

its stability, making it durable enough that it doesn't just crumble in your fingers, and so you can actually cut and polish it as any other gem material; b) to enhance its clarity, so you don't just see an opaque block of corundum. Now filled, it is a transparent gem material; c) to enhance its colour, starting out as a medium to dark somewhat reddish/purplish colour, the addition of the yellow high lead content glass gives this material a beautiful 'ruby red' colour; and finally, d) to enhance its weight, as there is a substantial amount of glass used in the filling of fractures, as well as being used as a binding agent to fuse together several chunks/pieces of this material.

Even with all of our 'Talk', just within this past year, I have been in two fine reputable jewellers and have helped them remove from their 'fine jewellery cases' at least two dozen pieces of 'ruby-set jewellery' set with this material. The store owners were shocked that their 'reputable suppliers' would send them this instead of natural ruby. One supplier was so adamant about not sending such product, that he heatedly asked whether we had a laboratory report proving our claim.

3. This close-up of a ruby's surface shows hundreds of fissures racing across the table. A prime candidate for filling if it hasn't been done already.

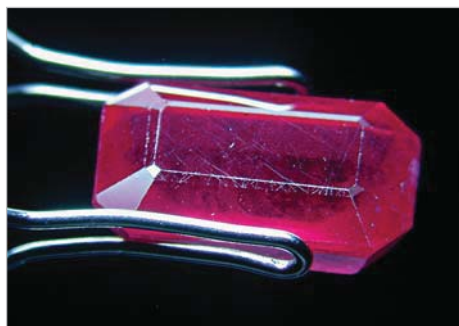


The jeweller informed the supplier that this is not a difficult identification, and that we would not be sending any of these pieces to a professional laboratory for a report.

So for those of you who are still being challenged by your suppliers — or clients who may have already purchased such material — to identify this material, do not hesitate to show them. First, use overhead lighting to light up the highly fractured surface of the material (3). Next, using dark field illumination, show them the blue flash and gas bubbles that will no doubt be present. With so many natural inclusions to peer through, there will be times when it may actually take you a minute or so to find gas bubbles that will be obvious to the supplier. Do not panic — you will find them.

Once identified, make certain that precautions on jewellery repair and cleaning are reviewed — no heat, or acids of any kind should come near this material.

What to call this material? Call it a composite, call it a hybrid, call it a man-made product, call it glass-filled corundum... but whatever you call it, make certain to disclose its treatment and its enhancements.



1. Using reflected light, one can easily see the multitude of fissures traversing the surface of the corundum. If nothing else, this is a sure indication that this material was a great candidate for glass filling.



2. Accent diamonds set in 14 ct yellow gold featuring a 3+ ct glass-filled hybrid composite corundum (glass-filled ruby). They make for pretty jewellery, but there is not much value — \$10 or less for the red stone.



4. This is a superb pair of platinum, rock crystal, pink tourmaline and diamond Art Deco clips, signed Cartier, circa 1935.

## It's just rock crystal

Being in New York to teach gemmology to up-and-coming jewellery designers gives us even more reasons to visit the auction houses. At a recent Magnificent Jewellery auction preview at Sotheby's, there were several pieces that caught our attention, not because of the rarity of the gem material, but for its use in design.

Seeing rock crystal as the jewellery, and not as the classic faceted or cabochoned gem, always seems to stand out. We don't see it often enough, but the use of rock crystal as the jewel, and not the gem, was considered more often in the Art Deco era than in any other time period. In this exhibit there were two, both Deco in style, one from the early 1900s (4), and one modern Aletto Brothers piece (5).



5. Here's an 18 ct white gold, rock crystal and diamond bracelet, made by Aletto Brothers, composed of 14 fluted rock crystal columns, spaced and accented by numerous round diamonds weighing approximately 10.05 ct total weight. All photos by Gary Roskin.

## The gems of BaselWorld — 2013

We're all looking forward to this year's BaselWorld jewellery show as they have completely rebuilt Hall 3 — the Hall of Elements — the Gem Hall. As the gemstone editor for the *BaselWorld Daily News*, it is my job to write about all of the important and exciting gems in the Hall, which usually means not only writing about what I have seen, but also taking images of them. In preparation for the show, I have been communicating with over 40 gem exhibitors these past few months. Saturated colour, large sizes, better quality, and untreated gems always seem to be their focus. Here are some of the organic gems we expect to be seeing at this year's event (6, 7, 8).



6



7



8

6. Beads do not take second place easily at BaselWorld as these fine quality angelskin coral beads from Ruppenthal will attest, measuring 14+ mm.

7. One of the most incredibly rare gem pearls seen in Basel are the Melo melo pearls of Southeast Asia. The feel of a 60+ ct Melo melo pearl gives one a better appreciation for its rarity and beauty. At approximately \$1,000/ct, gems like this are definitely there to impress even the veteran jeweller.

8. Large and 'small' South Seas pearls will be on exhibit. Here we have a 22+ mm round alongside a 'smaller' 10 mm cultured pearl.

## About the author

Gary Roskin is the author of *Photo Masters for Diamond Grading* and hosts the online gem news magazine *The Roskin Gem News Report*. For more information please visit: [www.roskingemnews.com](http://www.roskingemnews.com).

# Bottled up

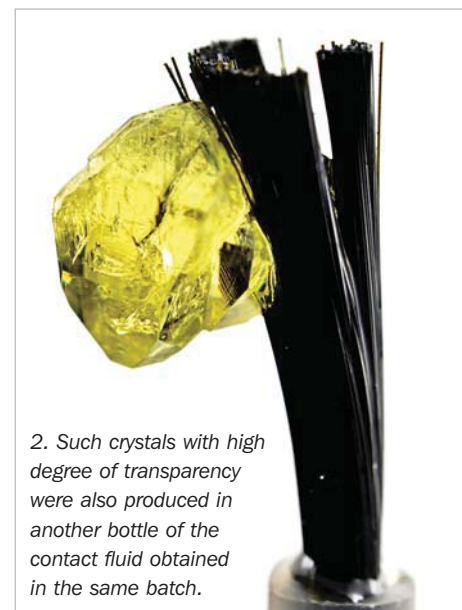
Gagan Choudhary FGA of the Gem Testing Laboratory in Jaipur, India, tells of an interesting incident with an RI contact fluid bottle.

At a gem lab one always expects unusual and interesting gem materials to come in for identification, especially if it is located at one of the major centres of coloured gemstones, like the Gem Testing Laboratory, Jaipur. Seldom does one find an interesting mineral specimen hiding on the shelf.

yellow, bi-pyramidal crystals (1). These were immediately assumed to be sulphur. However, the author had not previously encountered such large crystals in a bottle of RI contact fluid, although fine grains are quite common. The largest crystal measured approximately 14.70 mm in length. The crystal was carefully detached from the applicator and was kept safely for further study. The lab had purchased several bottles of RI contact fluid bottles from the Gem-A shop in London in August 2009 and when checked back at the laboratory another was also found to contain similar large crystals. One was of good quality (2) and also extracted for study.

## Visual Observations

The two largest crystals weighed 1.62 and 1.09 ct and measured 14.70 and 9.24 mm respectively in their longest direction (3a, b). Both were bright yellow with a bright vitreous lustre, but variable degree



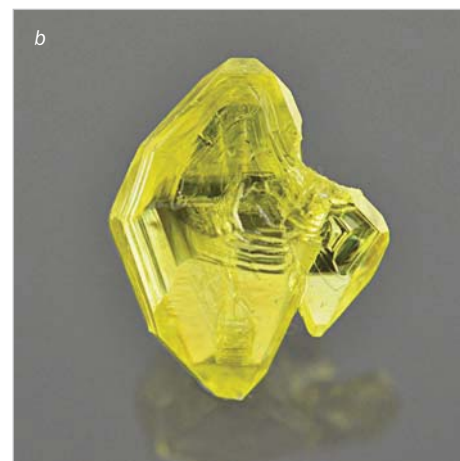
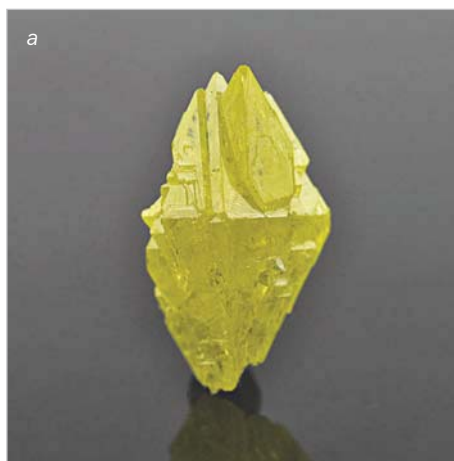
2. Such crystals with high degree of transparency were also produced in another bottle of the contact fluid obtained in the same batch.

of diaphaneity; the 1.09 ct specimen was transparent while the 1.62 ct specimen was translucent. Both crystals displayed a characteristic bi-pyramidal habit associated with the orthorhombic system and sharp crystal edges; the 1.62 ct crystal displayed a high degree of twinning, with smaller crystals extending out of the main crystal from the pyramidal faces (3a). The 1.09 ct crystal was also twinned, but the smaller daughter crystal was attached to the main crystal at one of the corners along the horizontal axis; in addition, this crystal also displayed distinct and sharp striations following its edges (3b).



1. Large bright yellow, semi-transparent to translucent bi-pyramidal crystals (of sulphur) formed at the lower end of the applicator of the RI contact fluid, obtained in August 2009.

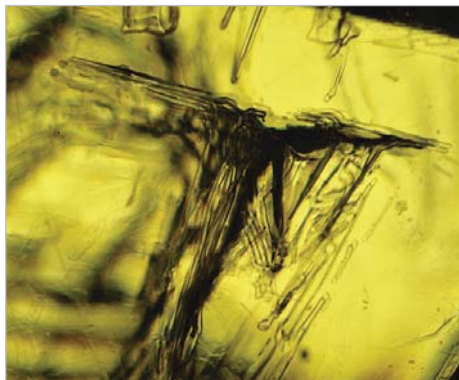
Recently, during an on-site testing assignment, the author was taken by surprise when he was setting up the equipment. While opening a fresh bottle of RI contact fluid, a solid object was seen attached to the brush end of the fluid applicator. Initially it was thought to be impurities deposited on the brush. Therefore, the applicator was taken out very gently so that the attached material could be removed without contaminating the fluid. The author was surprised when the attached solid material was revealed as a cluster of large, bright



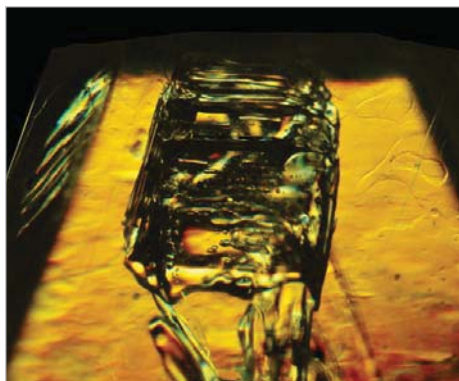
3a, b. The two largest sulphur crystals extracted from the cluster displayed bi-pyramidal habit associated with the orthorhombic crystal system, measured 14.70 mm (a) and 9.24 mm (b). Note the difference in the transparency of the two crystals. Also note the striations following the crystal edges (b).

## Microscopic observations

For curiosity, the crystals were observed under the microscope. Although the 1.62 ct crystal did not display any characteristic features, the 1.09 ct crystal did. A group of long and short tube-like features was present, where the tubes appeared to be oriented in three directions following the edges of the pyramidal crystal face (4). In addition to these tubes, a large negative crystal was also present; this negative crystal also contained numerous smaller globules and little tubes (5). Some wavy colour and growth zoning was also present, oriented mainly along the planes perpendicular to the c axis (5). Strong doubling of inclusions (4) and crystal edges was also obvious, as expected for sulphur, which has a high birefringence of 0.291.



4. A group of long and short tube-like features was present in the crystal illustrated in 3b.



5. The large negative crystal was also present in the crystal represented in 3b, showing the smaller globules and small tubes, and the wavy colour and growth zoning.  
All photos by Gagan Choudhary.

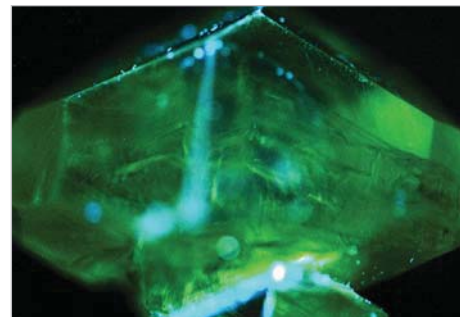
## Properties

Tests were mainly conducted on the 1.09 ct sample because of its better degree of transparency. Hydrostatic SG was measured at 2.04, while under UV light (both long- and short-wave) the sample displayed a weak orange glow. However, in DiamondView™ the crystal appeared green (6). No observable pleochroism was seen. With a desk model spectroscope, complete absorption of wavelengths in the violet-blue region was observed; this was further confirmed by UV-Vis-NIR spectrometry. Raman spectra collected in the range 200–2000  $\text{cm}^{-1}$  using 532 nm green laser displayed sharp peaks at 218, 246, 437 and 472  $\text{cm}^{-1}$  (7), peaks consistent with elemental sulphur.

## Conclusion

As expected, the crystals were confirmed as being elemental sulphur, one of the components of the RI contact fluid along with tetra-iodoethylene and di-iodomethane. Although sulphur forming as a result of sublimation from volcanic gases and/or due to bacterial actions is quite common in nature, formation of a crystal of significant size in a closed bottle of contact fluid seems unusual and well worth a few minutes of a gemmologist's time.

Now the important gemmological question. Are these crystals natural or should they be described as synthetic? A topic for GemTalk?

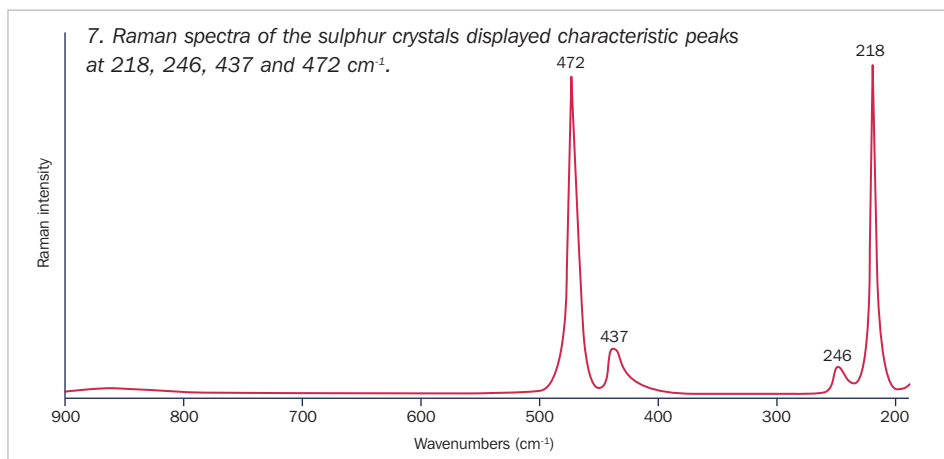


6. DiamondView™ image of the sulphur crystal.

## A comment

Gem-A's Alan Clark, director of Gemmological Instruments Ltd, comments: Over the years we and our customers have sometimes encountered crystals at the top of RI liquid forming a crust but never, to my knowledge, crystals of this size. I wondered what the RI of the liquid minus the sulphur that formed these crystals was; Gagan Choudhary's answer was that he was still able to measure the RI of sapphire using the same liquid, so it must have been 1.77 plus.

Possibly the bottles were on their sides when stored, allowing the crystals to form along the applicator at the boundary between the liquid and the air in the bottle. In my experience, crystals usually form when the liquid is stored at too low a temperature — unlikely in Jaipur — or else the liquid has evaporated slightly. Crystallization can be minimized if the RI liquid is kept in a warm environment and well-sealed.



## About the author

Gagan Choudhary is the deputy director of the Gem Testing Laboratory in Jaipur, India, and is involved in certification and research.



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# The diversity of Tucson

Last month Jack Ogden FGA gave his highlights of the recent Tucson Show. Here James Riley FGA talks about his first visit to the event and what Gem-A lugged back for its Book and Stone Library and Teaching collection.



*Emerald crystals in pyrites from Muzo mine (left) and in quartz from El Chivor mine (right). Copyright Gem-A, photo by Henry Mesa Bedoya.*

Tucson really is an incredible place — over 40 different ‘shows’ varying in size and quality dotted around the city. Part of the problem, especially if you are an exhibitor, is to get around and see everything. Fortunately Gem-A had a star team in attendance to sniff out the unusual, interesting, new or just down right wacky.

As the new boy my skills were utilized in negotiating with the diverse sellers from numerous cultures and backgrounds. Jack was on hand to take some great photos and tap up authors for our publications and speakers for our conferences. Fluorite

queen Claire Mitchell is an old hand at Tucson and led the strategy to ensure we covered all bases. I soon discovered that a good way of keeping the ‘Gaffer’ happy was to produce a piece of fluorite which she does not have in her collection. Helen Serras Herman (whose article on Tucson appeared in the January/February issue of *The Jeweller*) duly obliged with a piece from Kingman in Northern Arizona!

Meanwhile, Lizzie Gleave had a list of stones required for teaching samples and as an experienced gem dealer and tutor was ideally placed to execute her mission.

On holiday was Paveet Amrit from our education department. Silent but deadly — together with Davina Dryland, our guest geologist — she continually reported on things that might be of interest. Last and by no means least Andrew Fellows and I (AKA Laurel and Hardy) competed to see who could find the most unusual and dangerous gemstone.

So what did we find to make your mouth water?



*Bonding with nature... Gem-A instructor Claire Mitchell with a Tucson cactus.*



*Bixbite crystal and cut samples. Copyright Gem-A, photo by Henry Mesa Bedoya.*

## Emeralds: what colour would you like?

Subscribers to our GemTalk forum will be familiar with the heated discussions about nomenclature and specifically last year about ‘yellow emerald’ or Emeryl as it has recently been trademarked by the Yellow Emerald

## Shows and Exhibitions

### The Diversity of Tucson (cont.)



Two samples of Louisiana Opal. Copyright Gem-A, photo by Henry Mesa Bedoya.

Mining Company. To the rest of us it's just yellow beryl or heliodor. This nomenclature issue presents problems for dealers.

Well-known emerald dealer Ray Zajek had signs on his stand saying Red Emerald, Red Beryl and Bixbite. Of course they are all the same stone and only the last two of those descriptions are correct — in my humble opinion. The thing is that the purchaser will probably call it what he likes anyway and that while Tucson is the leading place for this sort of thing, many people just don't have the knowledge to know what things are. So the seller has to cover all the bases to cater for the lowest common denominator and then hope to educate his buyer without losing a sale.

In addition to some great teaching stones and crystals of bixbite, we purchased two very different pieces of emerald rough

still in their host mineral from Ray. This is unusual because most of the material is crushed. Even Ron Ringsrud, who will be speaking at the Scottish Gemmological Association Conference in May, is only able to sell pieces which he has 'assembled' — with full disclosure however! The genuine articles were examples from the Muzo and El Chivor mines. The first was in pyrites exhibiting excellent termination structure and the other in quartz showing delicate hexagonal crystals of the finest material. Our "we want it but we can't afford it" was an amazing pair of trapiche emerald cabochons. Just don't ask how much...

### Opals, opals and more opals

Opals come from Australia — right? Mexico? Well OK maybe Ethiopia as well? All of the above are true. We were able to purchase some excellent examples of dyed and smoked Ethiopian material where the art of negotiation was in force. How much are these? Offer half the price...

Very interesting were some specimens of fossilized wood and coral where opal had replaced the fossil. These were Australian. Very unassuming was a sample of Russian opal but the most unusual was a source of opal from Louisiana which is reverse hydrophane. A mixture of opal and quartz,

it is harder than most opal at 7 on Mohs' scale and it is reasonably heat-resistant. The deposit for this was very small and mined out in the 1990s. It is unlikely that there is another deposit making this quite scarce. Not my personal favourite but...

For diamond lovers there were some excellent examples of an alluvial deposit from Brazil where the crystals have become trapped in sedimentary rock. An unusual phenomenon was a stand selling diamond where the nitrogen had been replaced by hydrogen making an unusual pattern in the stone. Allegedly these were natural stones.

Jason Williams popped by our stand one day with a 'pink' tanzanite. Apparently these



Pink zoisite rough and faceted from Tanzania. Copyright Gem-A, photo by Henry Mesa Bedoya.



Rough diamond crystal in alluvial deposit of sedimentary rock from Brazil. Copyright Gem-A, photo by Henry Mesa Bedoya.



## Shows and Exhibitions



Paraiba tourmaline crystal in quartz from Barista mine, Paraiba province, Brazil.  
Copyright Gem-A, photo by Jack Ogden.

lilac stones had been found in Block D. We tracked down a piece of rough and a faceted stone at Idar-Oberstein cutter and dealer August Mayer. Details of this deposit can be found in last summer's *In Color* magazine.

Perhaps the most bizarre stones we came across were a donation of some peridotites from Charles Ellis. These stones have actually formed inside a meteorite somewhere in outer space. Research is

ongoing about where and how they were formed. It's unusual for them to be larger than 20 points however with as little as 2% being over 40 points. Or maybe it was a cat's-eye demantoid topazolite donated by Shawn Maddox. This stone originates from the San Diablo range in California, and it took 12 years of prospecting to find the deposit. Now that's dedication!

Speaking of demantoid, there were some

delightful Namibian demantoid garnets from the Green Dragon Mine showing that demantoid doesn't need to be Russian.

For the book lovers among you Rock of Ages had an extensive selection of unusual books. Perhaps the sweetest was a little book entitled *The Romance of your Birthstone* by Hope Swengel — published in the 1940s for \$8.

My favourite thing? A Paraiba tourmaline crystal in quartz from the Barrista mine in Paraiba province. The true electric blue colour is stunning. Some of you may remember a talk at our conference two years ago by Brian Cook, the supplier of this piece. Thank you Brian.

Back to those dangerous gems. Radioactive willemite, mercury ore — cinnabar, arsenic-based realgar or my favourite villiaumite which contains sodium fluoride. Please don't put this in your coffee anyone — hydro-fluoric acid is not pleasant.



Peridotite from meteor, rough and faceted.  
Copyright Gem-A, photo by Henry Mesa Bedoya.



Pick your poison. Faceted examples of willemite, realgar, cinnabar and villiaumite. Copyright Gem-A, photo by Henry Mesa Bedoya.

## From the Archives

# Exams

In this hundredth anniversary of the first gemmology exams, Jack Ogden FGA looks back at that first examination in 1913.

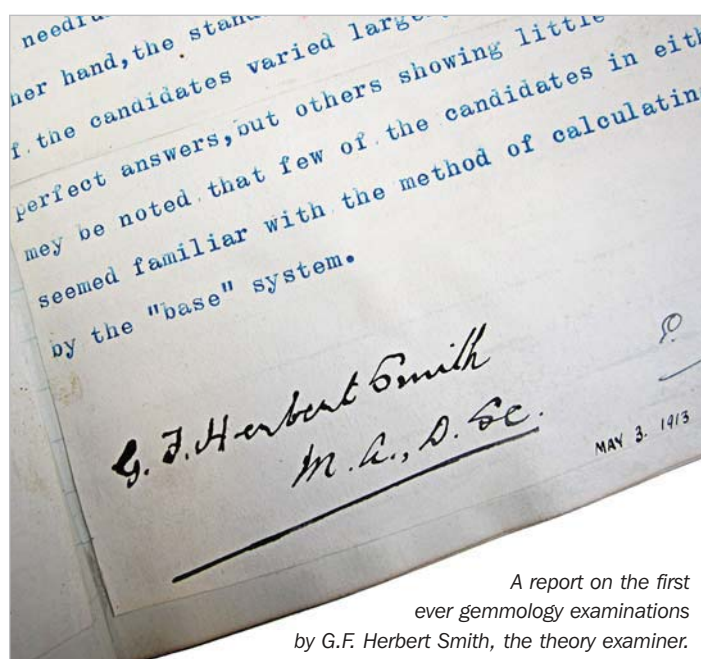
One hundred years ago, on the evenings of 21 and 22 April 1913, 20 people sat down to take the first ever gemmology examinations set by the Gemmology Committee of the National Association of Goldsmiths (NAG), the committee that eventually matured into the independent Gemmological Association of Great Britain, the Gem-A we see today. Of those 20 nervous candidates, eight were taking the Diploma exam in the Central School of Arts and Crafts in Southampton Row, London, now Central Saint Martins College of Art and Design, and 12 were taking what was then called the Preliminary exam, six at the Central School of Arts and Crafts, six "in the provinces under duly appointed supervisors".

It cost £1 18s to enter the Preliminary exam, £3 3s. to enter the two Diploma exams (theory and practical). The Preliminary exams were open "to any member of the trade, whether engaged in the wholesale or retail sides of the business" and it was not necessary for the candidates to be or become members or associates of the NAG. There was no age limit. For the Diploma exams, the candidate had to be over 21 years old and be or become a member or associate of the NAG before being awarded the Diploma. Students could decide which level they wished to enter and there was no need to pass the Preliminary before taking the Diploma, although three of the 1913 Preliminary graduates took and passed the Diploma in 1914.

'Fellowship' status (FGA) for Diploma graduates was a later introduction, but the early graduates were allowed to use the designation letters GD standing for 'Gemmological Diplomate'. Interestingly, the Examinations Board of the NAG had previously debated the correct spelling of gemmology — one or two 'm's. Herbert Smith had preferred it with a single 'm', but in their meeting in September 1912 the Examinations Board had formally agreed and minuted that "in all matters relating to the examinations the word Gemmology be spelled as herein written", that is with two 'm's. The 1913 exam questions are shown opposite.

The way of denoting weight in carats and fractions of a carat may bewilder modern gemmologists, but it reflects the way gems used to be weighed with two-arm balances and little weights in various sizes which, combined, could be summed to any carat value. The method of calculating pearl values using the 'base' system is still used by some natural pearl dealers, and was part of the Gemmological Association of Great Britain's gemmology syllabus at least as late as the 1960s. 'Cape ruby' was a pyrope garnet, jacinth was red zircon.

*The British Jeweller* magazine of 1 May 1913 noted that the questions in the first exam covered "a very interesting, instructive



A report on the first ever gemmology examinations by G.F. Herbert Smith, the theory examiner.

and well varied field." The examiners were G.F. Herbert Smith (theory examiner), W. J. Lewis Abbott (practical examiner) and W. Augustus Steward (director of examinations). An extract from their report following the exam notes that: "The character of the work in both the theoretical and the practical parts of the Diploma Examination was very satisfactory. The candidates on the whole displayed considerable knowledge of the subject, and evinced some skill in identifying stones and in applying the needful physical tests. In the Preliminary Examination, on the other hand, the standard of the work was less satisfactory. The work of the candidates varied largely in character, one returning almost perfect answers [A.W.F. Hamson with 92%], but others showing little accurate knowledge [such as A.F. Williams with 21%]. It may be noted that few of the candidates in either Examination seemed familiar with the method of calculating the value of pearls by the 'base' system." Remarkably the director of examinations commented that: "Several of the candidates expressed to me their thanks for the kindly manner in which they had been treated by the Examiners." It was not expressly stated that the candidates were rather pressed for time in the exams, but when the exams for the following year were planned it was agreed that the time allowed for both the

Preliminary and Diploma (practical) exams should be increased to three and a half hours each.

The pass mark in both Preliminary and Diploma exams was 50%. Six of the eight Diploma candidates passed and seven of the 12 Preliminary candidates passed. The two who failed the Diploma in 1913 retook the exam in 1914 and both passed. Three of those who failed the Preliminary exam in 1913 retook it and passed the following year. The successful candidates received their Diplomas and, for the Preliminary exam, certificates, at a special meeting on 17 July during the Jeweller's Exhibition that year in Agricultural Hall, later the Royal Agricultural Hall, Islington, London, a magnificent exhibition venue founded in 1861 and prior to World War II the site of numerous industry exhibitions. The Diplomas were designed by students of Central School of Arts and Crafts — the design being approved by the Examinations Board on 8 May. The jeweller Samuel

Barnett, a driving force in the establishment of the gemmology exams and a contributor to the NAG Educational Fund, was one of the Diploma Graduates in 1913, but it was simply alphabetical hierarchy that gave him Diploma number 1. His actual student number in the exam was 3.

*The British Jeweller* magazine, in congratulating the NAG for its 'innovation' in establishing the 1913 exams, commented: "With the great increase in the use of gems in articles of jewellery, and the increase in the number of varieties of the gems themselves, not forgetting the varieties of imitation and synthetic stones which are now so common, a thorough theoretical and practical knowledge of gem stones is necessary for the properly equipped jeweller." Those words are equally applicable today, although we might now also add treated gems to the syllabus, a category noticeably absent from those exams a hundred years ago.

## The questions

The questions asked in those first exams were as follows:

### Preliminary (3 hours allowed)

- 1 Define hardness, cleavability. What gem-stones are at least as hard as topaz?
- 2 Describe the brilliant form of cutting diamond.
- 3 What is the specific gravity of a stone, and how may it be determined? Calculate the specific gravity of a stone weighing 10  $\frac{1}{2}$ ,  $\frac{1}{16}$  and 8  $\frac{1}{4}$ ,  $\frac{1}{32}$  carats in air and water respectively.
- 4 What species might be represented in a parcel of red stones? How would you distinguish between them?
- 5 Define refractive index, and describe a method of measuring it.
- 6 How may paste and synthetic stones and imitation and culture pearls be distinguished from the corresponding natural substances?
- 7 Describe the following species, so far as they are used in jewellery: Beryl, corundum, diamond, garnet, opal, quartz.
- 8 What is the orient of pearl? Explain to what peculiarity of structure it is due.
- 9 Calculate the value of: (a) a stone weighing 11  $\frac{1}{2}$ ,  $\frac{1}{8}$ ,  $\frac{1}{32}$  carats at £2 12s. 6d. a carat. (b) a bunch, comprising 150 pearls as under, at 10s. the base: 5 pearls weighing 10 grains, 20 pearls weighing 25 grains, 125 pearls weighing 60 grains.

### Diploma Theory (three hours allowed)

- 1 To what mineral species do the following stones belong: Alexandrite, Cape-ruby, bloodstone, cat's eye, jacinth, kunzite? What do jewellers mean by 'olivine'?
- 2 Describe the brilliant form of cutting diamond. What are the principles governing its shape, and what are the effects of neglecting them?
- 3 What is the specific gravity of a stone? Describe fully the various methods of determining it.

- 4 What species might be represented in a parcel of red stones? State clearly the characters upon which you would rely in distinguishing between them.
- 5 Define refractive index, and give a full description of a method of measuring it. In what way does the double refraction of a stone affect the observations? How would you explain appreciable differences between the values obtained for different specimens of the same species?
- 6 Discuss the method by which gem-stones and pearls have been artificially reproduced or imitated, and point out how such may be distinguished from the corresponding natural substances.
- 7 Describe fully the following species, so far as they are used in jewellery, giving their physical properties and chemical composition: beryl, corundum, diamond, garnet, opal, peridot, quartz, turquoise.
- 8 Describe the principal gem-stones found in Brazil and California and mention the more important localities.
- 9 What is the orient of pearl? Explain to what peculiarity of structure it is due. Describe briefly the principal pearl fisheries.

### Diploma Practical (four hours allowed)

- 1 Determine as far as you can the physical characters — including the hardness, specific gravity, refractive indices, and the double refraction and dichroism (if any) — of the specimens set before you; find the weight in each case. Identify the specimens.
- 2 Identify the mounted stones set before you, in each case describing the cutting and estimate the weight.
- 3 Calculate the value of a bunch of 19,558 pearls as under at 8s. 6d. the base: 1,478 pearls weighing 220 carats, 2,794 pearls weighing 271 carats, 3,778 pearls weighing 252 carats, 4,868 pearls weighing 228 carats, and 6,640 pearls weighing 222 carats.

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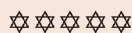
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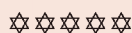
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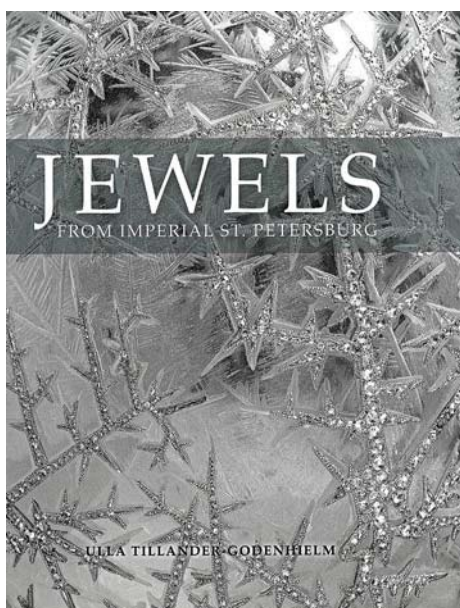


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# Jewels from Imperial St. Petersburg

Jack Ogden FGA reviews an impressive new book that chronicles the jewellery, its makers and its wearers of pre-Revolution Russia.



Ulla Tillander-Godenhielm  
*Jewels from Imperial St. Petersburg.*  
 Unicorn Press, St Petersburg, La Belière  
 and London 2012.  
 ISBN: 978-1-906509-25-8

St. Petersburg was founded in 1703 by Peter the Great, Tsar of Russia, later the Russian Empire, between 1682 (when he was just ten years old) and his death in 1725. We have few details about the craftsmen who first came or were brought to the new city from Moscow and various Western European centres, but Peter's known enthusiasm for the arts helped goldsmiths' work to flourish and the growth of St. Petersburg as a major centre for the jewelled arts was propelled by his four successors, all women.

This book traces the jewellery produced in St. Petersburg from its foundation through to the cataclysmic impact of the Revolutions in 1917. The author, an acknowledged expert in the subject, takes us on an essentially chronological journey through the

jewellery, its makers and its wearers. Portraits and documents intersperse the huge number of jewels shown, from private and museum collections. Many of the large number of objects shown are in private collections in Finland, a reminder that Finland was a Grand Duchy of Russia between 1809 and 1917.

The earliest St. Petersburg jewel illustrated by the author is a gold and silver brooch depicting an eagle on a floral spray set with diamonds, emeralds, rubies and sapphires dating to around 1750. From the second half of the eighteenth century there are some magnificent gold boxes, of course, but for the gemmologist gems of interest include a green chrysoprase set in a ring with the cipher of Catherine II (1770s–80s).

Once into the nineteenth century jewellery blossoms and we see a huge enthusiasm for coloured gems alongside diamonds. For the gemmologist there is a paucity of detail about the chronology and sources of the gems in this book. It would be good to see, for example, the fine pink topazes, amethysts and occasional demantoid garnet in the jewellery in the context of Russia's own deposits of these gems.

Colour is all around. There are many varieties of gems set in the jewellery shown, including hessonite and almandine garnet, turquoise, opal and pearls, as well as the gems already mentioned. And, there is the large pink diamond in the tiara of Maria Feodorovna. This ornament, with its 13.35 ct pink diamond was made in St. Petersburg around 1800. It looks an amazing colour, but we might ask whether some of the images have slightly intensified the colour of the actual gems. There are also a couple of pieces set with what is described as 'Mecca stone'. In the nineteenth century this seems mainly to have been used to describe carnelian, but apparently Fabergé used it in a looser way to include other colours of

chalcedony — the current book includes milky blue and lilac examples.

Once into the late nineteenth and twentieth centuries the jewellery reflects *haute epoch* styles found elsewhere in Europe. Sparkling little diamonds are set in delicate platinum mounts, a trend seen across Europe and America at the period, but also a reminder that Russia was a primary source of this precious metal.

The final section of the book includes a look at the Tillanders themselves. A young Alexander Edvard Tillander (1837–1918), from Finland, travelled to St. Petersburg and at 11 was apprenticed to a goldsmith in the 'village of the Tsars' — Tsarskoe Selo 15 miles south of St. Petersburg. He and then his son, Alexander junior, rose to prominence as important jewellers with son taking over the business from his father in 1910. With the outbreak of the Revolution in 1917 Alexander junior moved back to Finland with his family; his father stayed in St. Petersburg where he died in 1918. A large number of those fleeing Russia in the aftermath of the Revolution came to Finland, many bearing their jewellery as the easiest way to transport wealth. Buying and selling this jewellery re-established the Tillander business, now in Helsinki. The third generation — Alexander junior's three sons Leo, Herbert and Viktor — continued the business. Herbert Tillander will be known to readers for his *Diamond Cuts in Historic Jewellery 1381–1910* (September 1996).

Ulla Tillander-Godenhielm, the author of *Jewels from Imperial St. Petersburg*, is the great-granddaughter of Alexander Tillander. She has written eruditely and with passion about a subject close to her heart, and has assembled a remarkable range of illustrations to bring her story to life. This is a beautifully produced book, a delight to look at and essential for any jewellery historian's bookshelf.

## Stone Scoop



# Colours

Jack Ogden FGA takes a look at the coloured gem market a century ago, from sapphires in ascendance to a jet revival.

In the last issue of *Gems&Jewellery* we looked at some UK press reports about diamonds from 1913. This time we switch our focus to coloured gems and what better way than to start by quoting from *The Manchester Courier and Lancashire General Advertiser* (24 December 1913) "Diamonds are not by any means the most expensive among precious stones. Pearls are the dearest of all, and next to them are pigeon-blood rubies. Rubies are not very fashionable, but the best are so rare that their price remains excessively high. After rubies come emeralds, then diamonds and sapphires."

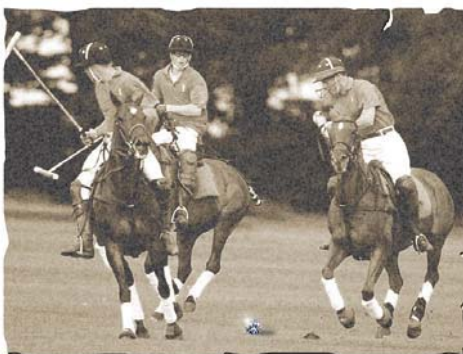
## Manchester blues

The same press report went on to say: "The true dark blue sapphire is one of the most popular stones this year." Sapphire had actually been sparse in European jewellery over the previous few centuries, up until the Kashmir deposits were discovered in the early 1880s. By the early 1900s sapphires were becoming popular and *The Manchester Courier and Lancashire General Advertiser* was by no means the only newspaper to comment on this — most mentions of engagement rings in the press that year were described as being of sapphire and diamond. And popularity, of course, breeds imitation. Luckily for the fashion-conscious woman of modest means, synthetic sapphires were now available; indeed their presence on the market was worrying to jewellers and was one of the factors that prompted the development of our gemmology courses. Earlier the same year *The Manchester Courier and Lancashire General Advertiser* had noted that "Wonderful imitation sapphires, too, are much worn. Because real sapphires are the stones of the moment..." (9 September 1913). The same paper had also mentioned synthetics, then described as 'reconstructed sapphire' (17 May 1913).

## Cartier chic

The frequent mentions of gems and jewellery in a 1913 Manchester newspaper is hardly surprising, Manchester was then a highly prosperous city. Indeed, that same year Cartier exhibited jewellery at the iconic 'Edwardian baroque' Midland Hotel in Manchester, then just ten years old. The Cartier pieces shown included "a wonderful pendant of oriental design" (*The Manchester Courier and Lancashire General Advertiser* 14 November 1913). The report did, naturally, refer to Cartier's diamond ornaments, noting that "In most instances the diamonds are mounted with extremely light platinum settings, which greatly enhance their brilliance", but also commented on "A very charming innovation introduced by this firm is the new carved rock crystal. This crystal is transparent, and possesses the attractive quality of reflecting the colour of the wearer's frock. It is seen in many fascinating aspects, surrounded by precious stones."

## Gem fields and polo fields



Sapphires and diamonds were not the only fashionable precious gems if we are to believe *The Evening Telegraph* for 1 September 1913 which noted: "For some unaccountable reason lately lapidaries have

been aware that the opal and the ruby are enjoying a popularity which is somewhat unusual." It commented that opals had become lucky and that a growing interest in rubies derived from people having greater familiarity with "a little village called Mogok" even though "The civilized world knows nothing of the famous mines there, for the road lies through forest which is seldom trod by man. A few Englishmen who live there have laid out a polo ground, and between this and the town are the mines." It added that "Dealers are experiencing the beginning of the boom in these gems, and it is expected that in a few weeks when the London season begins, the market will be in full swing."

## Jet set

For those with shallower pockets and no wish to buy imitations, many other coloured gems were available. There was apparently a reawakening of interest in marcasite jewellery in England in 1913, although, we are told, it had been popular in France since the discovery of a large deposit in the Jura Mountains in 1846 (*The Derby Daily Telegraph* 30 July 1913). There was also "a distinct revival of the mode for jet" as noted in several reports.

So, all in all it looks as if people in 1913 liked coloured gems and there was a good variety to choose from. In fact little had changed since a century earlier. In 1813 *The Hampshire Chronicle* (8 November) said that "red and white cornelian" was being worn with less formal dress, but that with formal attire "coloured stones have a decided pre-eminence over pearls. Emeralds and rubies are highest in estimation; but sapphires, topazes, turquoises, in short every kind of coloured stones are worn."

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