Gems & Jewellery

October 2013 / Volume 22 / No. 7

The Hong Kong Show

Alphabet Jewels

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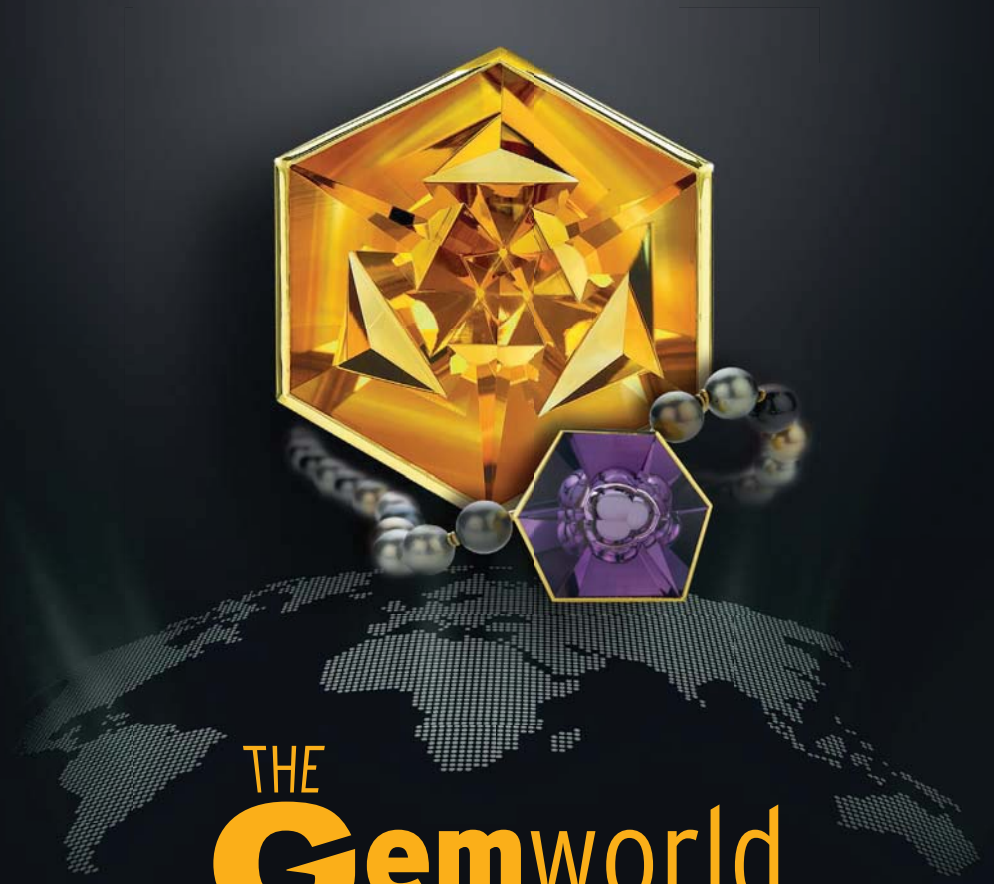

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Editorial

Gems&Jewellery
Oct 13

Contents

Keep it simple

Look through the articles in this issue and you can see the dichotomy in our field. There is stuff about gemmology — detecting heat-treated tanzanite for example (page 7) — and stuff about lack of disclosure in the trade, like the need for clarification about diamonds (page 17). There are expert gemmologists in the world and many people who earn their living buying and selling gems. It should be simple to link the expertise of the former with the business needs of the latter. So why isn't it?

The CIBJO Blue Books on gems, all three of them, present guidelines to gem nomenclature and how to describe and disclose. They are worthy and comprehensive. Compiling and re-compiling them has taken untold hours at meetings around the world over the passing decades, even eroding serious drinking time at CIBJO congresses, but just how effective and useful are they? I have come to the conclusion that they are confusing for gemmologists, perplexing for the trade and incomprehensible to the public? They are just too complex.

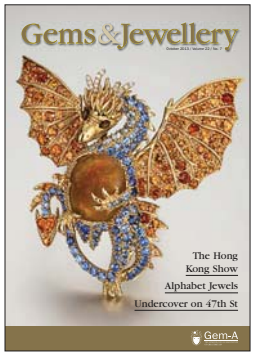
They don't need to be complicated. You really only need three categories of gem (in addition to synthetics and imitations): untreated natural gems, those that have undergone permanent treatment without addition of other substances (just heat and/or irradiation for example), and those which have been modified and are not durable or have had some extraneous substance added (e.g. oil, glass or beryllium) or both. Surely, if the present appearance (colour or clarity) of a gem is demonstrably due to adding some other substance, then it is modified. You could write the CIBJO guidelines in a paragraph or two — easy to explain to the public and usually easy for gemmologists to adjudicate.

The problem lies in between. The trade has tied itself into knots and ensured voluminous CIBJO Blue Books because it is nervous, held hostage to the past. If, for example, we now define oiled emeralds as 'modified' what will customers say about the emeralds sold to them in the past?

You can't have it both ways. Either the trade accepts very simple and logical (and honest) categories for what they sell or we will have ever-more complex definitions and trade disclosure will deteriorate further. It is up to you — I'm off (this is my final outing as editor)!

Jack Ogden

Cover Picture
Dragon pendant on show at 'Jewels of the Connoisseur' (page 5).
Courtesy Bowers Museum. Photo Robert Weldon.



Published by
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Registered charity no. 1109555
Copyright 2013 ISSN 1746-8043

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Gem news

Jack Ogden reports on Kashmir sapphire sales, an exhibition of rare gems and J. Paul Getty Museum's open access programme.

Kashmir

In the last few years there has been much talk of building up the mining for sapphire in the Paddar Valley in Indian administered Jammu and Kashmir — the famed 'Kashmir sapphires'. Some recently mined material is coming onto the market both officially and unofficially and the local government, keen to re-establish commercial mining, is seeking tenders from potential international gem-mining companies. Unfortunately the uncertain extent of the remaining deposits and wariness over potential military action in the region has slowed progress. Some yield is being sold via government auction. Although the few samples we have seen of the recent production were rather colourless with a blue skin, some with small blue colour patches (below), there are reports of finer quality from the area. Indeed in 2011 'high quality blue sapphire' from Sonchan mines at Paddar were seized from Sri Lankan smugglers, according to a report in *The Hindu* (17 July 2011).

In the June Government auction this year a 63.60 gram rough sapphire was presented. This was the second time this crystal had been put up for auction (the first time in April 2011) and, again, failed to find a bidder at a sufficiently high price and we understand that private tenders are now being solicited. This large crystal was found during mining activity in 2010 but may actually have been found in the tailings of earlier mining activity. With the global interest in fine Kashmir sapphires on the market today, it is hoped that a detailed survey of the area will provide a clearer idea of potential yields and tempt investors.

Haji Abdul Majid Butt, consultant to J&K Minerals Limited, has provided the following figures for rough sapphire yield from the mining area:

Year	Production	Sale	Revenue
2008	–	1,600 g	INR 13,000,000
2009	3913 g	12,330 g	INR 7,4700,000
2010	4502 g	–	–
2011	8820 g	5,799 g	INR 8,229,000
2012	4520 g	4,281 g	INR 4,328,000

Two examples of recently mined Kasmir sapphire. Courtesy of Haji Abdul Majid Butt. Photo Jack Ogden.

Gem News

Jewels of the Connoisseur

The Bowers Museum in Santa Ana, Southern California, has been exhibiting Jewels of the Connoisseur (27 July – 6 October), rare gems from the private collection of Buzz Gray and Bernadine Johnston. Among 50 rare stones was a 1,377 ct morganite, said to be the largest faceted morganite in the world. Shown here are a dragon pendant in benitoite, spessartine, black opal (21.09 ct from Nevada) and diamonds (right) and a pinwheel pendant with a Madagascan rainbow feldspar centre, surrounded by sections set with benitoite, spessartine, pezzottaite, demantoid garnets, apatite and grossular garnets (left). Benitoite is the California state gemstone and found only in San Benito County, California. Buzz Gray and Bernadine Johnston are also well known for their butterfly collection — a range of butterfly jewels set with rare gems, including examples of hauyne, stibiotantalite, hiddenite and jeremejevite.

Pinwheel pendant with a Madagascan rainbow feldspar centre, surrounded by benitoite, spessartine, pezzottaite, demantoid garnet, apatite and grossular garnet. Private collection of Buzz Gray and Bernadine Johnston. Photo Robert Weldon.

Following the Jewels of the Connoisseur exhibition, the Bowers Museum will host A Quest for Beauty: The Art of Van Cleef & Arpels from 27 October 2013 to 15 February 2014, presenting 200 pieces from the private collections of Van Cleef & Arpels including jewellery, watches, precious accessories, and archive drawings and documents.

Dragon pendant in benitoite, spessartine, black opal and diamond. Private collection of Buzz Gray and Bernadine Johnston. Photo Robert Weldon.

Getty makes photos open access

The J. Paul Getty Museum has made some photos of objects in its collections open access. This is what they say: "The Getty adopted the Open Content Program because we recognized the need to share images of works of art in an unrestricted manner, freely, so that all those who create or appreciate art — scholars, artists, art lovers, and entrepreneurs — will have greater access to high-quality digital images for their studies and projects." The range of objects available include several important pieces from their ancient jewellery collections, engraved gems and a thirteenth-century manuscript in Latin (right) with a description of diamond (adamas) which may be the earliest depiction of octahedral diamonds, although the octahedral shape had been described since antiquity. Shown left is a mid-sixteenth-century French hat badge and what appears to be a table-cut diamond described as a glass imitation — an early example of such imitations.

A mid-sixteenth-century French enamelled gold hat badge. J. Paul Getty Museum, inv. 85.SE.238. © 2013 The J. Paul Getty Trust. All rights reserved.

The full page of the Getty manuscript *Concerning Diamonds* can be found at: http://search.getty.edu/museum/records/musobject?objectid=110644

Detail of a Franco-Flemish manuscript page ca. 1270 'Concerning diamonds' which illustrates octahedral diamond crystals. J. Paul Getty Museum, inv. 83.MR.173.100v. © 2013 The J. Paul Getty Trust. All rights reserved.

Gem-A news

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

Showtime

It's that time of year again: show time! The autumn season kicked off with IJL and a farewell to Earls Court. I have mixed views about this show; it's expensive compared to other shows around the world, the quality of exhibitors is not representative of the UK market and it is not well attended. It could also do with a shake-up on the organization front. That said, it's really Hobson's choice with the Spring and Autumn fairs not being comparable. The word is that Olympia next year will be only three days but the opening hours will be longer — from 9 am until 9 pm. That's 12 hours on a stand? As the general manager of the Hong Kong Jewelry Manufacturers' Association said to me, why would exhibitors from the Far East potentially want to spend 30 hours travelling for three days exhibiting? Add to this the late relocation of stands and poor interaction between stand holders and the organizers, and the future looks bleak. It is highly possible that Gem-A will choose not to exhibit unless things change; a dangerous strategy possibly but with the costs outweighing the benefits, the association can get a better return on its investment elsewhere. We would welcome members' feedback on this as we don't want to ignore our own backyard, but there are, perhaps, alternatives.

New premises

Tuesday 3 September saw the official opening of Gem-A's new premises at 21 Ely Place with over 250 people attending. In spite of a request from IJL to move the date, a fantastic evening was had by all concerned with the general consensus being that this is an important new chapter in our history. For those of you who haven't had the chance to visit, please do pop in. The building will be fully open during the conference for everyone attending. A massive 'thank you' from me personally, and on behalf of the members, must go to all of the staff at Gem-A for their hard work over and above their normal duties to bring about the relocation. An apology and thank you goes also to the onsite students who have endured noise and dust, but still persevered and managed to obtain a very high success rate in the examinations.

Harry Levy officially opens our new premises

Staff

This month sees the retirement from Gem-A of two of its most influential individuals of the last 20 years. As I mentioned last month, Jack Ogden is retiring, although he will be doing consultancy work. I know he has written about this elsewhere so there is little else I can add other than to thank him for all his efforts, particularly with this magazine and I hope he will continue to contribute to it.

Roger Harding, former director of gemmology at Gem-A, 'retired' many years ago but has continued as editor of *The Journal of Gemmology*, upholding its standards and ensuring that it has retained its pre-eminence as the leading scientific gemmological publication in the world. He has not been easy to replace, so much so that he has selflessly ensured continuity until we found the right individual. Thank you Roger.

Farewell also this month goes to our membership assistant Carlos Witkowski. Carlos has been with us a little over three years and will be familiar to many as the smiling face that greeted you on reception in Greville Street. He is taking on a new membership role at the Royal College of Paediatrics and we wish him every success in the future.

As a door closes so a new one opens. Our new editor of *The Journal of Gemmology* is Brendan Laurs. Brendan will be known to many as the former editor of *Gems & Gemology*. His appointment brings a new chapter to *The Journal* and to Gem-A. From 2014 *The Journal* will return to four issues per year following the increase to two in 2013. The appointment of Brendan has been assisted greatly by Michael Krzemnicki and the SSEF. This is part of an exercise to make *The Journal* more accessible around the world, and to ensure it remains at the forefront of gem research and is able to communicate this with the highest possible impact. Brendan will be at our conference in November but feel free to contact him before with articles and ideas: brendan@gem-a.com.

A warm welcome is extended to our new IT manager, Charles Evans. Charles is an FGA DGA who has previously worked in IT in the publishing world. He will be enhancing Gem-A's IT and also working on projects such as advanced instrumentation and looking to organize overseas trips for members.

Conference

Last and by no means least, our next major event is our conference to be held in November, celebrating the centenary of the Gemmology Diploma and the fiftieth anniversary of the Diamond Diploma. This is set to be a really special event with some tremendous speakers as well as the opportunity to see and handle part of the Somewhere In The Rainbow™ collection. Space is limited for many of the conference events so don't delay — book now! I hope to see you there.

The Journal of Gemmology

Gem-A's most recent issue of *The Journal* contains articles dealing with the detection of heat treatment in tanzanite, Chinese freshwater cultured pearls and the characteristics of synthetic alexandrites. Jack Ogden sums up this latest gemmological research.

1 Typical multi-phase inclusion in unheated tanzanite observed under crossed polars.

Detecting heat treatment in tanzanite

Gemmologists are aware — and gem sellers should be aware — that the majority of tanzanite is heat-treated. It comes out of the ground a brownish colour and is then heated to develop its fine, characteristic blue — to fulfil nature's intention, as tanzanite advocates might say. Only around 12–15% of blue tanzanites were blue when mined and so when there is no evidence of heat treatment there can be a premium on price. The problem lies in determining whether or not tanzanites have been treated. There is no simple, 100% reliable criterion (see *Gems&Jewellery* August/September 2013, pages 13 and 14). In a two-part article, Dan Taylor, Professor Andrew H. Rankin and Professor Peter J. Treloar propose a new approach — looking at liquid inclusions within the stone[1].

The research reported here, instigated by the late Dan Taylor, looked at well-developed multi-phase inclusions in unheated tanzanite from the Merelani mining area (D block), Tanzania. Using Raman microanalysis, the researchers were able to identify the liquid and vapour phases within the inclusions as hydrogen sulphide (H_2S). At even relatively low temperatures (well below 100°C) these liquid and vapour phases of hydrogen sulphide homogenized to a single liquid phase. Higher temperatures could destroy them completely. All but the smallest (<2–10 micron) inclusions would not survive the temperatures of around 600°C probably used for heat-treating tanzanite, and even with treatment at 450°C, survival of inclusions over about 20 microns would be unexpected. The presence of hydrogen sulphide in multi-phase inclusions in tanzanite (**1**) — detectable by Raman analysis in a gem lab — therefore appears to be an indication of lack of heat treatment. The authors stress that this was initial research on a limited number of samples, but the potential is exciting. The authors also note that the human nose is extremely sensitive to the 'rotten egg' smell of hydrogen sulphide and that if one of these multi-phase inclusions is opened, such as during cutting, the smell of the released hydrogen sulphide is readily detectable.

Chinese freshwater cultured pearls

Recent years have seen huge developments with Chinese freshwater pearls with an extended range of sizes and shapes, including tablets and crosses (**2**). It is interesting to read the report on how they are produced and their characteristics by Professor Li Liping and Wang Min of the Gemmological Institute, China University of Geosciences, Wuhan[2]. The yield of freshwater cultured pearls in China has ranged between 1,000 and 1,600 tons between 2005 and the present. During this time there have been significant developments including optimizing the

2 Rectangular flake beaded freshwater cultured pearls. Photo Li Liping and Wang Min.

Journal Files

3 Second generation freshwater cultured pearls. Photo Li Liping and Wang Min.

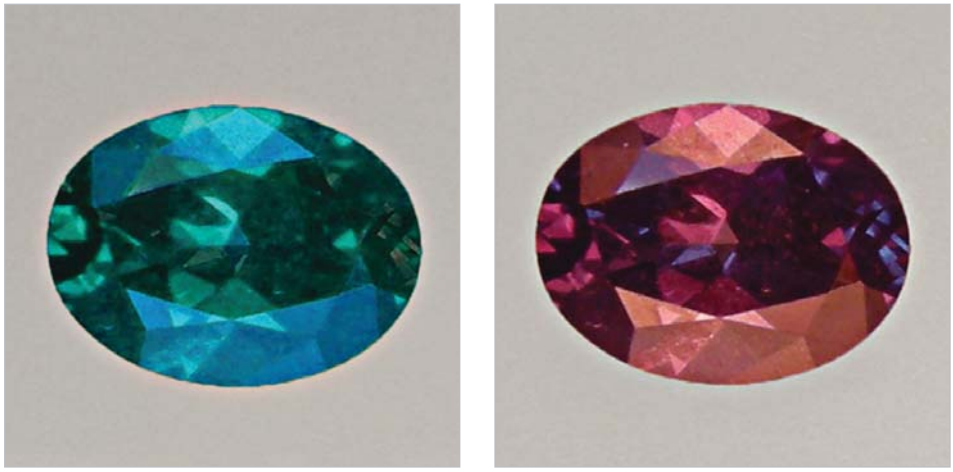
breeding of mussels, including hybridization and improvements in surgery techniques. This article explains some of these developments as well as gemmological study of the resulting pearls, including microscopy, cathodoluminescence, Raman spectroscopy and X-ray diffraction.

The non-beaded, freshwater cultured pearls are produced by introducing mantle tissue within the mussel. The shape of this mantle tissue and its positioning within the mussel determines shape. For example, the bar or tablet shapes require a rectangular strip of mantle tissue, the cross shapes form when there are two strips of mantle tissue at right angles. Similarly, with beaded, freshwater cultured pearls, different bead shapes determine the final product. The harvesting of freshwater cultured pearls has typically involved the death of the mussel. However, it is now possible to keep the mussel alive and implant a bead or piece of mantle tissue to produce a second-generation pearl (**3**). Non-beaded second-generation pearls are typically thin and of a curved petal or flake shape, and usually have a rough surface. However, large balloon-like 'soufflé pearls' are produced by injecting a muddy liquid into the existing pearl sac.

In cross-section, the new forms of non-beaded, freshwater cultured pearls resemble the concentric structure of the previously known ones. Under cathodoluminescence most show a yellowish-green fluorescence, except the centres of the elongated and cross-shaped which have an orange fluorescence. X-ray diffraction revealed the yellowish green fluorescence was due to aragonite, the orange to vaterite. With the new beaded, freshwater cultured pearls, such as disc shapes, cross-sections were similar to those seen in other beaded, freshwater cultured pearls, with a sharp boundary between bead and pearl layer. The authors conclude that: "The basic structure of the new varieties of freshwater pearls is similar to that of traditional freshwater cultured pearls, which consists of concentric nacreous layers; these are mainly of aragonite with small quantities of vaterite, and some organic residue remaining in the central hole."

Synthetic alexandrite

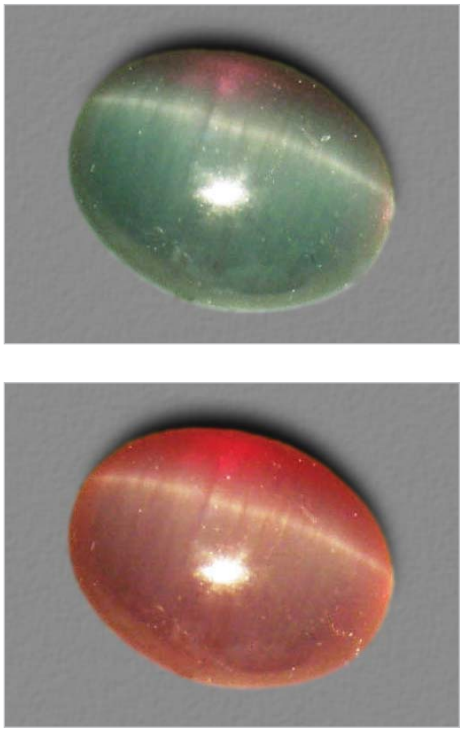
The recent popularity — and multiplying varieties — of colour-change gemstones, plus Karl Schmetzer's scholarly 2010 *Russian Alexandrites*, has brought alexandrites, natural and synthetic, to the fore. Synthetic alexandrite has been grown using the Horizontal Oriented Crystallization process (HOC) since the late 1980s, but surprisingly a complete gemmological description of this material has been lacking. This is remedied in the first of two articles on synthetic alexandrite in this latest *Journal* by Dr Karl Schmetzer, Dr Heinz-Jürgen Bernhardt, Walter A. Balmer and Thomas Hainschwang[3]. With the HOC process, plate-like crystals up to almost half a kilogram in weight have been grown (**4**). The most significant internal characteristics of this material are curved growth striations and flat, irregularly shaped and somewhat elongated cavities. Both these types of



4 Faceted synthetic alexandrite grown by the HOC technique in daylight (left) and in incandescent light (right). Photos by K. Schmetzer.

internal characteristics can be seen also in synthetic alexandrite grown by the Czochralski process, but the form of cavities differ sufficiently to be a guide. The article also discusses the physical and chemical properties of the HOC synthetic alexandrite including UV Vis absorption spectra, trace element concentrations, crystal morphology and colorimetric parameters. This latest research also raises questions regarding whether or not synthetic alexandrite has been grown hydrothermally. Such production has been occasionally described in the gemmological literature, but as the reported characteristics of this material appear similar to those now reported for HOC samples, the existence of hydrothermally grown alexandrite requires further confirmation.

The second article by Dr Karl Schmetzer, Dr Heinz-Jürgen Bernhardt and Thomas Hainschwang covers synthetic alexandrite and reddish-violet chrysoberyl grown by Kyocera in Japan using the Czochralski method[4]. The production of alexandrite cat's-eyes by Kyocera dates back to the 1980s. This material when cut en cabochon in the right orientation produces asterism in one direction and chatoyancy in another (**5**). The pleochroism and absorption spectra of this synthetic alexandrite suggested that there was an element present in addition to the chromium and vanadium commonly observed in synthetic alexandrite. Analysis confirmed that the colour of the synthetic alexandrite cat's-eyes and stars was due to titanium and chromium with minor amounts of vanadium, and that oriented needle-like crystals causing the star were titanium-containing, probably rutile. The reddish-violet synthetic chrysoberyl from Kyocera is also coloured by titanium. The article includes a survey of the patent literature regarding synthetic alexandrite cat's-eyes which reveal that both the Czochralski and Floating Zone processes could be used,



5 Ti-bearing synthetic alexandrite cat's-eye produced by Kyocera in Japan in daylight (top) and incandescent light (below). Bosshart collection. Photo by K. Schmetzer.

that the colourants were chromium oxide alone or chromium oxide in conjunction with vanadium oxide or other oxides, and that the dopant causing asterism was usually titanium oxide. The patents explain that the needle-like precipitates causing asterism are formed by exsolution in a special heat treatment process subsequent to crystal growth.

1. 'Liquid hydrogen sulphide (H_2S) fluid inclusions in unheated tanzanites (zoisite) from Merelani, Tanzania: Part 1. Recognition, characterization and gemmological importance' by Taylor, D., Rankin, A.H., and Treloar, P.J., and 'Liquid hydrogen sulphide (H_2S) fluid inclusions in unheated tanzanites (zoisite) from Merelani, Tanzania: Part 2. Influence on gem integrity during and after heat treatment' by Rankin, A.H., Taylor, D., and Treloar, P.J. *The Journal of Gemmology*, 2013, **33**(5-6), 149-59 and 161-9

2. 'Structural features of new varieties of freshwater cultured pearls in China' by Li Liping and Wang Min. *The Journal of Gemmology*, 2013, **33**(5–6), 131–6

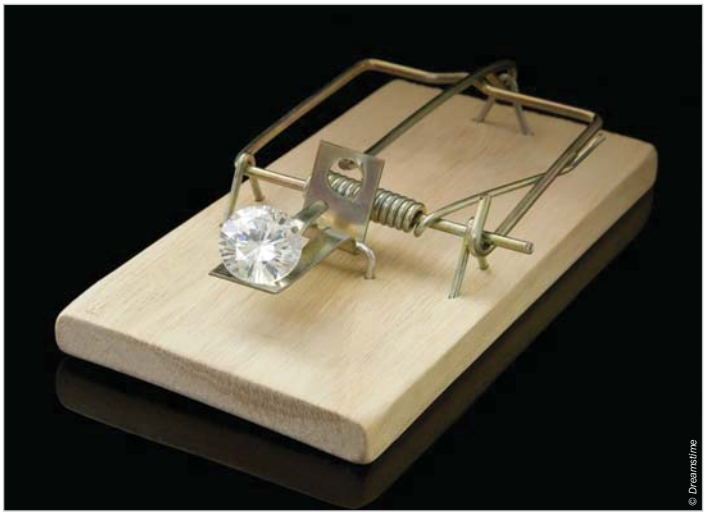
3. 'Synthetic alexandrites grown by the HOC method in Russia: internal features related to the growth technique and colorimetric investigation' by Schmetzer, K., Bernhardt, H-J., Balmer, W.A., and Hainschwang T. *The Journal of Gemmology*, 2013, **33**(5–6), 113–29

4. 'Titanium-bearing synthetic alexandrite and chrysoberyl' by Schmetzer, K., Bernhardt H-J., and Hainschwang T. *The Journal of Gemmology*, 2013, **33**(5–6), 137–48

The Kimberley Process: it's a question of provenance, not origin

Harry Levy, Gem-A president, considers the current situation with the Kimberley Process and the questions it raises.

The Kimberley Process (KP) has now been with us for nearly 15 years; wars have come and gone, regimes have disappeared, rebels have become legitimate governments, yet those outside the trade continue to promote the KP and regard it as a solution to many of Africa's problems. They regard any progress in African society as due to the KP being in place and continue to want to refine it. The premise on which the KP came into being was that rebels in Africa were using diamonds to purchase arms and help their rebellions in killing native Africans. No one questioned why there were these rebellions or why people were fighting, and the NGOs and their supporters argued that if the source of diamonds dried up then so would the wars. The KP has been in place and indeed wars have ceased in parts of Africa, but one cannot argue that this is solely because of the KP. Cause and effect is a well-studied topic in philosophy. If A causes B it does not follow that if we do not have A, then we do not have B. For the argument to work we have to show that A is both a necessary and sufficient condition to cause B. In our case we have to show that it is necessary to have diamonds to have wars, and it is sufficient to have diamonds for war to happen. Neither of these conditions is proven. Wars occur without the presence of diamonds; it does not follow that if there are diamonds then war will ensue.



The rebels themselves say that if there were no diamonds they would use other natural commodities to obtain money. The diamond industry has been maligned for years now as a source of evil and too many people with absolutely no knowledge of the diamond industry and trade have jumped in to try to make our world a better place. There seems to be little equivalent activity to control the oil industry and, more important, the arms industry.

The concept of 'origin' issue

The latest attempt is to 'help' the industry by getting suppliers to know and give the origin of polished diamonds, no matter how small. The concept of origin has been the basis of controlling the diamond industry. But what do they mean by 'origin'?

I remember having to complete customs declaration forms for importing parcels of gemstones. One question was on 'origin'. I never knew whether this meant where the parcel had been posted, where the gems had come from, where the stones had been cut and polished, the last place the rough had come from to the polishing centre or where the stones had been mined. Most of us would agree that it is the last option — it is where the stones are mined.

The case with diamonds is more complicated than that of other gemstones. Diamonds were formed in the mantle of the earth many millions of years ago from carbon under high pressure and high temperature. These come to the surface through volcanic eruptions in what are called kimberlite pipes. Most stay there and are mined, first near the surface and then we have to go deeper and deeper to find them. Those near the surface do not always stay there; they migrate. They get into sedimentary soil and are moved by rivers, floods and by the topography of the earth in mud slides. So a diamond may be found (and mined) many miles away from where it first came to the surface. These are known as alluvial diamonds; the small-time miners who find them are called artisanal miners; they have no machinery and use bucket and spade.

When gemmologists talk about origins of coloured gems they refer to where the stones were formed, which usually is where they are found. Coloured gems migrate far less than diamonds because they are softer and are soon ground to small grit — look at a scoop of sand under a microscope and you will see many types of stones. Gemmologists pride themselves on often being able to give an origin

for a coloured gem based on impurities which are manifested in the colour of the gem, its inclusions or both. Naming origins of gemstones is not a deductive science; it is based on building a database of the trace elements and inclusions in gemstones of known origin.

With diamonds, colour is not a positive indicator of origin as most are colourless and we have little or no database of impurities in diamonds. So confusions arise when we are asked to identify the origin of diamonds, especially for those with no gemmological knowledge. For example, if they want to ban diamonds from Sierra Leone, they cannot prevent their export by smuggling, but still expect gemmologists to tell them if the stones came from Sierra Leone originally. We have no way of doing this. Further, not all diamonds coming from a particular country are necessarily conflict diamonds. That is why the KP required the authorities in a conflict area to sort out which diamonds were legitimate and give these a licence (KP Certificate — KPC) allowing them to be exported. The only recent example of a total ban was for diamonds coming from Marange in Zimbabwe. Here, for the first time, a government had run foul of the KP, and some of these diamonds were easily identifiable because of a green tinge visible in polished stones. But the KP shot itself in the foot by allowing Zimbabwe to export several million carats of these stones, so many are in the legitimate trade. The Zimbabwe situation has forced the KP to try to re-define conflict diamonds to incorporate human rights' issues, something which it was never designed to do and which has not yet been achieved.

A bridge too far

Legislatures in the EU now wish to impose further restriction on diamonds by demanding origins be put on all diamonds, including those in set jewellery. This would be a bridge too far. It is not origin that is the issue, it is the provenance. It is not a question of where the diamond came from, but who sold the stones. This confusion has existed from the very beginnings of the KP. Those who know least about the diamond trade shout the loudest about origins. The KP in its wisdom understood this difference, but many of those vociferous about cleaning up the diamond trade seem to have no idea about this.

Further, the KP understood how the trade functions and imposed restrictions on rough diamonds, not polished ones. Rough diamonds were sold by entities such as De Beers, Al Rosa and Argyle, by sorting the stones by type. For example De Beers sorts into a possible 5,000 types based on size, clarity and so on. It ensures that all the diamonds it has are conflict-free before they go in the mix and are then sorted. The rough may come from many sources.

Cutters of diamonds get their rough from many sources and, after cutting, these stones are also sorted into types by shape, size, colour, clarity and so on. The cutters sell to dealers who again sort them, and then to manufacturers of jewellery who re-sort them to ensure the stones that go into a piece of jewellery are matching sets. Nowhere in this chain is origin an issue. The assumption is that the distributers of rough diamonds have ensured that their

diamonds are KP compliant; they are kosher, and what comes from a kosher source remains kosher.

To try to keep polished stones separate by origin would involve huge numbers of separate packets and no one packet will necessarily have a sufficient quantity or sizes of diamonds to complete an article of jewellery. Imagine trying to keep a tally of origins for oil until it becomes petrol and is sold at the pumps. Or those sellers of gold, some of whom claim that they deal in clean gold only, knowing full well that there is so much recycled gold in their system the initial origin of which is totally unknown.

The diamond industry has tried to comply with every demand made on it so far by those who want ethical jewellery, but is now faced with a possible demand it cannot meet. I have often used the analogy that you can ask a man to jump off the tenth floor of a building — which he can do. But try asking him to now jump back from the ground floor to the tenth floor and see the result.

I hope when these discussions come up, there will be people with knowledge of diamonds to explain these points to the legislators. Otherwise we will have decisions made by those speaking through their hearts rather than through their heads.

And on another subject…

Finally I would like to add my thanks to (Dr) Jack Ogden for the many years he has spent in producing this magazine, for his writings, lectures, talks, wit and wisdom, and most of all his subtle prods to our accepted knowledge and his sense of humour. I have worked with Jack for many years, going well back into the last century, in his days as CEO for the NAG and secretary general for CIBJO and much more. We often spent an evening, after a day at a conference, lamenting the fact that not many delegates followed the arguments, and "Oh, there is always next year!" Good luck to him in whatever he does.

International Jewellery London

The 2013 IJL exhibition took place at Earls Court, London, 1 – 4 September. Jack Ogden reports on the show – the good, the bad and the beautiful.

1. *'The Rose Garden' pendant created for Tivon's 50th Anniversary and set with Tanzanian red sapphires (quite distinct in colour from rubies). Courtesy Tivon Jewels*

2. *Marcus Reddish sapphire. Photo courtesy Marcus McCallum Ltd*

So, my tenth International Jewellery London exhibition (IJL) while working with Gem-A is over. There is an English expression about a curate's egg. It derives from a cartoon dating back some 120 years where a bishop comments that the egg that his guest, a curate, is eating appears bad. The curate, not wishing to offend the bishop, replies that parts of it were excellent. IJL 2013 was a bit like that. First the negatives. There was a paucity of exhibitors — manifested in the abundant and always welcome spaces arranged as seating areas; a paucity of visitors, apart from on the Sunday, and a continuation of the trend towards more and more exhibitors of down-market products. Down market is still a market — a very big one — but it is not 'fine jewellery', nor the quality that made IJL the premier jewellery show it used to be.

There were also some exhibitors whose disclosure about gems was an embarrassment. Buyers (and only trade buyers are admitted) who think they can buy a bright red 'natural ruby' for a few pounds a carat deserve what they get — but their customers don't. I'm not a great fan of vetting committees at major art and antique shows, even though I have been on a few. These committees consist of experts who preview the show and reject exhibits that are not what they say they are and, where applicable, demand that ticket descriptions be rewritten. Maybe it's time to think about an equivalent for IJL. In any case, the organizers of IJL really do need to put some sort of oversight or vetting in place. Their target is to get exhibitors to fill the hall, but it shouldn't be at any price.

So what was good about IJL 2013? First of all it looked great. The overall decor and decoration, and the style of the basic booths, did the organizers credit.

3. *Couture Faye cocktail earrings in peridot, citrine and coloured diamonds by Sarah Ho. Photo courtesy of Sarah Ho.*

There were many really good exhibitors, and a wonderful seminar programme.

We can start with the exhibitor who won this year's Gem-A sponsored Gem Empathy Award. This award is bestowed upon the IJL exhibitor who demonstrates knowledge, enthusiasm and flare for coloured gems, and whose jewellery shows captivating use of them and is described accurately. In a sense the winner has to be a stand-out ambassador for coloured gems. This year's winner was London-based Tivon Fine Jewels. There were two pieces that really caught the judges' eyes and which were the centre of interesting conversations (without the exhibitors knowing they were being judged, of course). One was a superb aquamarine and diamond pendant (see their ad on our back cover). This 58.60 ct stone was a beautiful greenish blue — traditionally the colour of the finest aquamarines, before the purer blue became prevalent. Indeed that was the core of the conversation — was it an aquamarine or a green beryl? Both judges concurred that they'd call it an aquamarine. Colour descriptor was also the centre of the conversation about the second piece, a circular pendant set with 10 red sapphires (**1**). Red sapphires? Well the stones, heat-treated and from Mozambique, were certainly red and certainly sapphires, but they had a brownish tinge that both Tivon and the judges agreed really wasn't ruby-like.

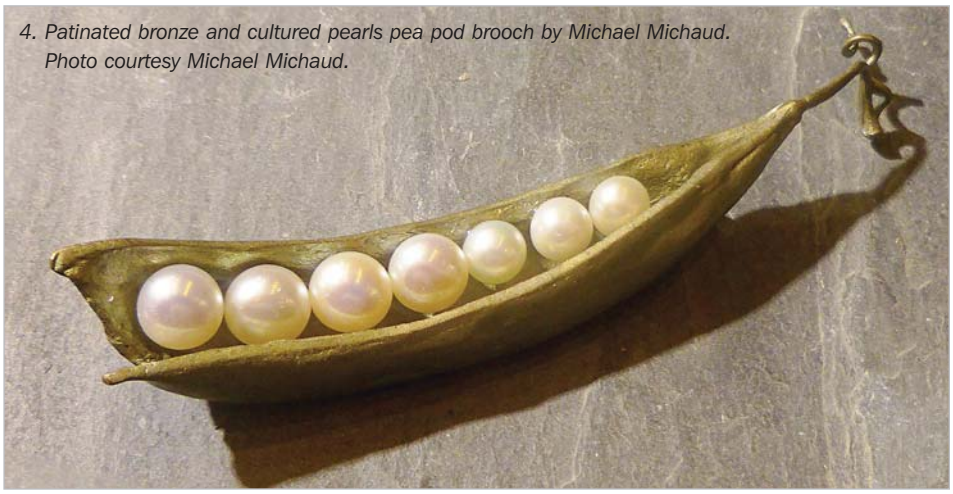
Shows and Exhibitions

Aquamarines were well represented at IJL. PJ Watson had a good range of aquamarine and diamond pendants, with bright aquas from Mozambique, while Marcus McCallum also had a reddish sapphire that none would claim to be a ruby (**2**). The stone, from Madagascar, was described by Marcus as a 'brownie purpley orangey sort of colour'. That might not be accepted colour terminology, but it certainly summed it up.

Sarah Ho used IJL to launch two new products, her 'Paradis Collection', inspired by the bird of paradise and Art Deco elegance, and her men's DK30 collection which derives from a ring she made for a friend's 30th birthday. Among the jewellery displayed by Ho was an exquisite pair of peridot and citrine earrings (**3**). Of course, not all exhibitors or their customers deal with high-end jewellery, so for every exhibitor of gem-studded gold or platinum, there were several who showed jewellery in sterling silver and base metals. Among the latter, many exhibitors resort to gold, silver or rhodium plating, producing,

5. Pendants based on the forms of antique Ottoman locks, in gold, silver and diamonds, by Sarrafians. Photo courtesy Sarrafians.

let's face it, what can best be classed as imitation jewellery, regardless of how well it is designed. So I admire jewellers who have the courage of their convictions and exploit the possibilities of the non-precious metals they use. One such is Michael Michaud who casts botanical subjects in bronze and then applies various types of surface colouring and patination. Shown here is a patinated bronze and cultured pearl pea-pod brooch. It is not just a casting based on a pea pod, it *is* cast from a pea pod (**4**).



4. Patinated bronze and cultured pearls pea pod brooch by Michael Michaud. Photo courtesy Michael Michaud.

The international flavour of IJL was shown by exhibitors from several countries, including some Hong Kong exhibitors and, for the first time, Sarrafians from Istanbul. Istanbul has a good and historical reputation for jewellery and in recent decades its designers have produced some wonderful Ottoman-inspired pieces. Among those shown by Sarrafians were pendants in hand-engraved gold, silver and diamond, based on Ottoman period locks (**5**).

One of the reasons Gem-A exhibits at gem shows world-wide is to keep in touch with members and students, and our diverse network of instructors. This year was no exception, with many old and new friends visiting our stand. Such visitors often have gems to show; some just bought, others treasures or puzzles from their collection. This year one such visitor was Elaine Branwell who kindly showed us — and then presented to Gem-A — some interesting samples, including black moissanite sold as black diamond (with accompanying mini-cert) (**6**), milky opal that was actually plastic (supposedly from China) and various coated quartz samples. Apparently coating colourless, synthetic quartz to imitate citrine and other coloured quartz varieties has become a cottage industry in Thailand, although its economic viability is puzzling.

For next year, IJL moves from Earls Court to Olympia, just up the road. It will be interesting to see how this move, forced on IJL by the redevelopment of the Earls Court site, will affect the show. The new venue will provide a very different feel and I hope that the organizers will take the opportunity to build on their successes and learn from criticisms. IJL is a treasured part of the UK jewellery industry — both a flagship for the industry and a barometer of how that industry is faring. I wish it, its exhibitors and its visitors, well for the future.

6. Black moissanite with its 'certificate' stating that it is a 4.63 ct black diamond. Copyright Gem-A, photo Jack Ogden.

For more information see:
mamicameo.it • marcusmccallum.com • michael-michaud.com • pjwatson.co.uk
sarrafians.co.tr • shojewellery.com • tivonjewels.com

Shows and Exhibitions

Hong Kong

The September Hong Kong Jewellery & Gem Fair, the largest gem and jewellery show in the world, proved again that it is the barometer for our industry. Jack Ogden reports on prices, products and new challenges.

Prices

Prices for coloured gems are tricky to keep tabs on. Things change ridiculously quickly and quality is of paramount importance. The general feeling among gem dealers at Hong Kong was that prices for good- to- fine quality gems have gone up some 20% over the last six months. It is hard enough for gem dealers, so heaven only knows how appraisers keep up with things — even those with sufficient hands-on, market know-how to recognize the minute differences in shade of a ruby, say, that can add a zero to its value. At one end of the scale there are shovel-loads of natural but cheap stones — for example pretty coloured but heavily included Chinese peridot at 99 US cents a carat — at the other end there are the specimen gems at prices to make either your eyes or your mouth water (depending on whether you are buyer or seller). With fine gems I am not just talking about the large gems to feed the growing high end, collector and even embryonic investment market, such as a selection of tanzanites over 100 carats on show. Small but beautiful gems also command high prices. For example coloured gem specialist Evan Caplan had two beautiful Brazilian Paraíba tourmalines, one pear, one a trillion (**1**). They weighed around two and three-quarters carats each and he was asking the best part of US$60,000 per carat. Bear in mind that the majority of Paraíba tourmalines are heat-treated — the trillion here was a sapphire-blue colour when mined. With some gems lack of treatment is of the utmost importance, with others it hardly matters.

Blues and the blues

Blue sapphires are in the ascendant as the Chinese have been major buyers for the last couple of years — following their love-affair with red gems — and other blue gems, such as tanzanite, are being carried up with it. For the Chinese, as with much of the market, lack of treatments in sapphires is important at the high end, but less of a concern for commercial goods. The demand is, of course, for fine Kashmir, Burma and Sri Lankan stones. Interestingly China does have its own sapphire deposits, but little reaches the domestic market. Some is exported to Australia, some to Thailand and a fair bit to Switzerland for the watch industry — their frequent occurrence as thin plates makes them ideal for cutting into little watch jewels, and their rich, dark colour means that the jewels look 'sapphire blue' when very small.

1. Two small but beautiful Brazilian Paraíba tourmalines. Courtesy Evan Caplan.

2. Greyish sapphire rough that has been bleached and then immersed in blue, cobalt-containing glass which has glued them together. They would be broken apart and then cut. Copyright Gem-A.

3. Glass-filled sapphire: a low cabochon (99 US cents a carat) and two faceted examples (US$ 5-7 a carat). Copyright Gem-A.

Glass-filled sapphires

While on the subject of sapphires, the blue-glass-filled sapphires are now out there (**2**, **3**). They had hardly been seen on the market previously. Just like the glass-filled rubies that have blighted the industry for the last few years, the sapphires are fairly readily identified by anyone with a bit of gemmological knowledge and a loupe — gas bubbles, colour flash (not always that evident) and fillings in crevices made obvious by relief effects. The blue glass filling is coloured by cobalt so they also typically show red with the Chelsea Colour Filter and blue laser; however this is probably not definitive as some blue sapphires with a touch of chromium (such as many from Sri Lanka) can also show reddish. Prices for the rough and some of the cabs were less than US$1 a carat, the faceted material generally around US$3–10 depending on quality (and seller). There are, naturally, other colours of glass-filled sapphire on the market — I've seen green, pink and yellow — but seemingly not in any quantity.

Hail a cab

Perhaps the main gem trend evident with coloured gems is the use of cabochons. There were cabochons and sugarloaf gems in all varieties, sizes and qualities — tanzanite, tsavorite, peridot, spinel, tourmaline, aquamarine, sapphire, ruby. You name it, the cabs were there, both loose and set, for example, the sapphire and ruby necklace on offer by Veerasak Gems (**4**).

Yellow fever

Do you have any jewellery in your inventory set with small yellow diamonds — say one or two points? Stake your reputation on them being natural? One Chinese producer of synthetic HPHT yellow melee (1–2 pts) showed me some of his production. He sells them for what they are, fully disclosed, but as he said he could not guarantee what happens further up the supply chain. He also reckoned he would be producing colourless synthetic diamond melee 'quite soon'. Yellow HPHT synthetic diamond melee is also now being produced in Surat, India — right next to the diamond cutting factories. Should we worry? One gemmologist told me he had recently purchased a parcel of yellow melee for research at the Hong Kong Show last year. Despite insistence by the seller that all were natural and untreated, testing revealed that around a third were synthetic, all the rest were natural but treated.

4. A necklace of ruby and sapphire cabochons. Courtesy Veerasak Gems Co. Ltd.

Blue light

Gresham's Law states, in essence, that the 'bad' coming on the market tends to kick out the 'good' — in perception as much as in practice. Thus announcements of blue amber for sale immediately trigger visions of yet more blue stained or otherwise treated amber (or copal). But there is 'good' blue amber, such as that now coming from Sumatra. Like the Dominican Republic green amber, the colour is a fluorescent sheen, not a body colour, but even so the colour can be striking under daylight, especially when on a black background (**5**). The Sumatran amber also includes reddish, in some lights almost ruby red, as well as various shades of yellowy-brown. The story I was told was that the amber was first found in a Sumatran coal mine a couple of years ago and was being thrown away until someone recognized what it was. It has now been coming onto the market for about 18 months. Apparently it has been dated to between 25 and 35 millions years old. This was all explained to me by Starborn Creations, a US company exhibiting in Hong Kong and with a selection of blue and other Sumatran amber rough, polished and set in silver jewellery.

Proof of the pudding

In business terms the show was slow, disastrous for some. Overall, loose gems seemed to do better than finished jewellery and some gem dealers had smiles on their faces — one I met had just signed up a million US dollar sale with one customer. The recent changes on the Chinese political landscape including the crackdown on corruption, the associated reductions in

5. Two samples of Sumatran 'blue amber' — amber with a blue surface fluorescence, photographed in sunlight on a dark background. Copyright Gem-A.

Shows and Exhibitions

Hong Kong (cont.)

lavish gift-giving, and greater wariness about large cash transactions have apparently slowed down purchases in some top-end gem and jewellery categories (much the same seems to have happened in Russia with Russian buyers thin on the ground in Hong Kong). Although Chinese growth might have slowed slightly it is still high and old hands reckon things will be back to previous levels soon. The reluctance of Chinese buyers to spend at the Hong Kong show may be due to their already having high inventories rather than any fear about a significant drop-off in trade.

New Zealand jade in China

I popped into China for a day for a meeting and took the opportunity to visit the new Guangdong Museum in Guangzhou. A huge, spectacular museum that puts almost any museum built in the West in recent years to shame, it is a perfect demonstration of the extraordinary economic growth in China. One current exhibition in the new Guangdong Museum was a loan exhibition devoted to New Zealand jade, with a large selection of jade artefacts, boulders and informative material on its history and working. It was extraordinary to see how tough New Zealand nephrite used to be sawn and polished with unsophisticated sandstone saw and polishing blocks (**6**).

That strayed a bit from Hong Kong, but it underlined Chinese ascendance on world markets in general, and how it steers global gem prices and demand in particular. Thus, as has been true for several years now, the September Hong Kong Gem & Jewellery Fair, the largest such show in the world, is the barometer for our trade and an essential port of call for all those with a serious involvement in the gem and jewellery industry. For Gem-A the show provides the ideal opportunity to catch up with our many teaching centres, instructors, students and members in the region, including from Hong Kong, China, Taiwan, Australia, New Zealand and Japan.

6. A New Zealand nephrite block partially sawn using an abrasive stone saw. On exhibit in Guangzhou (Guandong Museum).

Diamonds: not all is explained with clarity

Antoinette Matlins was recently contacted by ABC-TV to follow up on an undercover segment she had done with ABC some eight years ago on the sale of clarity-enhanced diamonds to the public in New York. The producers thought it would be interesting to do a follow-up using her and the same investigative reporter, Dan Harris. So off they went, in disguise once more, to find out if unsuspecting members of the public still are sold clarity-enhanced diamonds without proper disclosure. Here Antoinette explains that the good news is that things have improved to some extent, but the bad news is that poor disclosure is still pervasive.

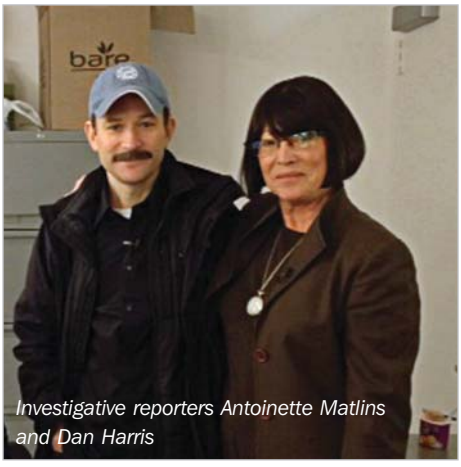
Ring saga

As we went from store to store in New York's jewellery district, looking at pretty rings and talking to the sellers, I found that far more dealers now indicated that, with our stated limited budget, we might want to consider clarity-enhanced diamonds — what they called 'CE' diamonds — because they were less costly. Clarity-enhanced diamonds, that is diamonds where fissures have been made less visible by filling them with lead glass, have been around since the 1980s, but even just eight years ago none of the sellers we approached had mentioned CE, simply explaining their low prices as being a very competitive whole-sale price. This time a couple of sellers were forthcoming and very honest about what they were selling. For this reason, I insisted to the producers that the segment should be balanced and show the 'honest' dealers as well as the bad.

The final segment, after editing many hours of recording, came to less than 20 minutes even though it involved many days of work — from discussions with the legal department to equally tedious hours in make-up to disguise us (I was supposed to be Dan's mother). We donned special clothing to hide the cameras and rehearsed what could and could not be said for legal reasons, and on and on. The first round of undercover work took four long days, filming our 'search for the perfect ring' followed by returning to the studio to make sure the equipment had been working correctly — it hadn't always. Another four days were taken up with confrontation with the sellers and several days of 'B-roll', the background shots of 47th Street, my office and so on. The segment was aired on 10 July.

The good, the bad and the ignorant

While we found that there were some people deliberately deceiving, sales people were often just woefully lacking in knowledge about what they were selling. What had changed from eight years ago was that many sellers did now mention CE the moment they heard what Dan's budget was, distinguishing between 'natural' and 'CE'. They acknowledged there was a reason for the lower price, even if hazy on the details. One seller explained that they "sell for less because something is done to make them look better than they do when they come out of the ground". Not one acknowledged that the appearance might not be permanent.



Investigative reporters Antoinette Matlins and Dan Harris

I will be able to dine out for years telling people some of the responses we got when we asked about CE treatment. Some sellers said it had to do with special cutting or a special polish, but my favourite was a dealer who told us that his CE diamonds were 'enhanced' by a very sophisticated process. This, he explained, made flaws in a diamond invisible by lasering the flaw and then forcing gas through the laser path to the flaw so that it encircled the flaw — like a bubble. So, when the light going through the diamond reached the gas bubble it was reflected away from the flaw so you no longer saw it! I was sure I'd heard wrong, so I asked him if he said 'gas' or 'glass' and he reiterated 'gas', he even spelled it for me (remember, I was playing 'mom' and my hearing wasn't what it used to be). Other sellers confessed that they didn't understand the CE process because it was too technical.

In many instances we might have witnessed sellers' ignorance rather than any deliberate intent to deceive, but the end result is the same. We felt justified in filming the segment. Although in the public media such as TV, I'd much rather focus on the positive facets of our field, the public do need to know what to look for, what to look out for and what to ask. If Dan Harris had really been just another young man venturing into the jewellery district looking for a good price on a diamond engagement ring, he almost certainly would not have received sufficient information to make an informed decision about what to buy; he may well have been exploited by the unscrupulous.

Gem-A

THE GEMMOLOGICAL ASSOCIATION
OF GREAT BRITAIN

Gem-A Conference 2013

Friday 1 November — Tuesday 5 November

Understanding Gems™

Visit www.gem-a.com

FRIDAY 1 NOVEMBER

Seminar day

A series of practical half-day workshops will be taking place at Gem-A headquarters.

- **Richard Drucker** FGA GG
  Coloured stone grading and pricing workshop II
  (Update on grading coloured gems with new grading methods and information)
- **Arthur Groom**
  Exploring emerald clarity enhancements
- **Craig A Lynch** GG, ACCREDITED SENIOR GEMOLOGIST, AGA
  Is the porridge too hot, too cool, or just right? That is the answer!
  (The Somewhere In The Rainbow™ collection of green grossularite garnet and zoisite from east Africa, with hands-on study)

SATURDAY 2 – SUNDAY 3 NOVEMBER

GOLDSMITHS' HALL, LONDON

Gem-A Conference

Guest speakers:

- **John Bradshaw** GG
  Non-traditional gemstones: The rare, medium-rare and well done
- **David Callaghan** FGA
  In the beginning...
  (The history of the London gem lab)
- **Dr John Emmett**
  The colours of corundum: A search for the soul of a padparadscha
- **Dr Emmanuel Fritsch** GG
  Luminescence — what's in a word?
  (Luminescence in gemmology from basic UV to photoluminescence in HPHT treated diamonds)
- **Arthur Groom**
  Emerald clarity enhancement
- **Brian Jackson** FGA DGA
  Scottish gemstones
- **Dr Jack Ogden** FGA
  Treasure, traders and trickery:
  The Cheapside gems in context
- **Sonny Pope**
  The future in coloured diamonds:
  An introduction to the HPHT multistep process
- **Martin Rapaport**
  The state of the diamond industry
- **Gary Roskin** FGA GG
  Mastering the challenges in diamond grading
- **Chris Sellors**
  English gemstones, Blue John and Whitby jet
- **Shelly Sergent**
  Somewhere In The Rainbow™
  Toto, We're not in Kansas anymore!
  (A look at the celebrated The Somewhere In The Rainbow™ gem and jewellery collection)
- **Dr James Shigley**
  The evolving challenge of gem identification

EVENING SATURDAY 2 NOVEMBER

Anniversary Dinner

EVENING SUNDAY 3 NOVEMBER

Graduation Ceremony

- **Martin Rapaport** will present the Awards and give the address.

MONDAY 4 – TUESDAY 5 NOVEMBER

Exhibitions and Visits

Private viewings will be held at London museums, including the Cheapside Hoard at the Museum of London, the Pearls exhibition at the V&A, and at the Natural History Museum. There will also be a private viewing of the Crown Jewels at the Tower of London, now to be held on Wednesday 6 November.

To find out more about all of the above visit:
www.gem-a.com/news--events/gem-a-conference-2013.aspx

Spell bound

Jewellery set with gems that spelled out names or sentiments was common in the nineteenth century, but working out what was intended is not always easy. Jack Ogden investigates a veritable alphabet soup.

The term 'acrostic jewellery' might not be that familiar, but most readers, especially appraisers and those dealing in antique jewellery, will at least know one example: the 'regards ring'. The regards ring is a band set with seven gems, the initial letters of which spell out the word REGARDS. Indeed, an 1840 American report notes this "delicate way of expressing a sentiment" in England and mentions a half-hoop ring spelling 'regards' as a typical example. Acrostics — initial letters of words spelling out names or messages — date back to ancient times, but their use in jewellery is very typical of nineteenth-century sentiment. The earliest examples are seemingly French and Napoleon was a big fan. There are bracelets surviving that spell out the name of Napoleon's mother Letitia and commemorate events such as the birth of his niece Napoleon in 1806 (yes, he had a niece called Napoleon — born in 1806).

If we go back to the popular 'regards rings' the gems used are pretty straightforward — typically Ruby, Emerald, Garnet, Amethyst, Ruby, Diamond, Sapphire. However, as we've seen with Napoleon, almost any word, phrase or personal name could be spelled out. It is not too difficult to work out what another mid-nineteenth-century-ring says: Ruby, Amethyst, Carnelian, Hessonite garnet, Emerald, Lapis lazuli. Yes, the name 'Rachel'. Albert, Prince of Wales, gave a ring to Princess Alexandra on their wedding in 1863 set with a Beryl, Emerald, Ruby, Turquoise, Jacinth (zircon) and Emerald. This example of what was called a 'name ring', spelled his name BERTIE (J and I were interchangeable).

But not all gem names are as readily recognizable. What if you came across a Victorian ring set with a zircon, an amethyst, a jasper, a white topaz and an emerald? Believe it or not, this actual example described in 1819, spelled *J'aime* — 'I love' in French. Zircon, known as Jacinth, gave the 'J'. Jasper was 'I' here since, as noted above, I and J were interchangeable. White topaz was known as 'Mina Nova' hence the 'M'. Another example described in the nineteenth century was in French and would not be obvious to most of us today: 'SOUVENIR', spelled out with Sapphire or Sardonyx, Onyx or Opal, 'Uraine' (probably uranite, see below), Vermeille (orangy-red garnet), Emerald, Natrolite (which found some use as a gem in the early nineteenth century), Iris (iris quartz) and Ruby or Rose diamond. You see the complications. Even a simple diamond set in a piece of jewellery might be supposed to be read as B (Brilliant diamond), D (Diamond) or R (Rose diamond). A Mina Nova (M) could also be interpreted as 'Novas Minas' — N.

The 'slipper' ring shown below is set with an Emerald, two lapis lazuli, Emerald, garnet ('Vermeil'), Opal, garnet ('Vermeil'), Sapphire, garnet ('Vermeil' again) and an Amethyst (the gems at each end are not visible in the photograph). This thus reads in French *'Elle vous va'* which, bearing in mind the central slipper and Cinderella allusion, can be read 'It fits you'.

The second ring illustrated opposite has a political rather than sentimental message. This was made around 1820 and showed political support for Caroline of Brunswick, Queen Consort of King George IV. In the centre is CR for Caroline Regina under a Royal Crown, and around this her name in gems: Citrine, Amethyst, Ruby, Opal, Lapis lazuli, 'Jacinth' (I), Novas Minas and Emerald. If it had been spelled in her native German, the emerald wouldn't have worked. In German emerald is *Smaragd* and would have stood for S, as the nineteenth-century German mineralogist Franz von Kobell reminded us when he pointed out that there were languages other than English and French employed in acrostic jewellery. Kobell also noted an alternative choice for 'U': "Recent times have furnished a name which may assist, namely, a green garnet, containing chrome, from Siberia, which has been baptized after the Russian Minister Uwarrow and called Uwarrovite." This green garnet, now known as uvarovite, was only discovered in 1832.

Nineteenth-century writers provide extraordinary lists of gems for acrostic jewellery — some of which are blindly repeated in books to this day. Examples include Cacholong (common milky opal),

An early nineteenth-century acrostic ring with Cinderella's slipper which reads in French 'Elle vous va' — 'It fits you'. Photo Courtesy of Cathy Gordon.

A gold acrostic ring, ca. 1820, showing support of Caroline of Brunswick and spelling her name. Photo Courtesy of Cathy Gordon.

Chrysolite (peridot), Diaspore, 'Egyptian pebble' (yellow to brown jasper), 'Fire-stone' (pyrite), 'Krokidolite' (for crocidolite — quartz cat's-eye), Milky opal, Porphyry, Purpurine (glass sunstone), Uranite (a green uranium phosphate), Ultramarine (lapis lazuli), Vesuvianite, Verd-antique (a green serpentinite breccia), Water sapphire (iolite), Wood opal, Xanthite (a variety of vesuvianite), Xepherine (no idea), Xylotile (probably the variety of chrysotile, less likely the nineteenth-century imitation of ivory) and Zurlite (apparently an old name for melilite). The 'souvenir' bracelet mentioned earlier supposedly contains a uranite and it has been suggested that the natural radiation from this stone caused the 'Iris quartz' next to it to darken — which long prevented its identification.* What did radioactive uranite do to the wearer? Possibly it was lucky that uvarovite turned up as an alternative.

The problem is that with so many alternative and gem names, almost any combination of coloured gems in a piece of nineteenth-century jewellery might have been intended to spell out something. Working out what is what can take the skills of a code-breaker equipped with an FGA. One also wonders whether all were meant to be readily deciphered. Perhaps sometimes they were indeed a secret message of love or political affiliation intended to be understood by the recipient or wearer only. I'm sure than in many cases their secrets are still safe.

* For more on acrostic jewellery and the suggestion about radioactive uranite see http://sentimentaljewelry.blogspot.co.uk/2008/03/making-silent-stones-speak.html

I'd like to thank Cathy Gordon and Michele Rowan (www.rowanandrowan.com) for their help in providing information and images.

Gem-A Calendar

Gem Central
Monday 21 October, 18:15–20:00
Lesser known gemstones — test your knowledge with Andrew Fellows FGA DGA

Career Service
Monday 11 November, 18:00–19:00
A Career in Gem Dealing with Jason Williams from G. F. Williams & Co.

Gem Central and Gem-A Career Service events are held at the Gem-A headquarters, 21 Ely Place, London EC1N 6TD.

Please call +44 (0)20 7404 3334 or email events@gem-a.com for more information or if you plan to attend.

The Gem-A Conference 2013
2 and 3 November,
Goldsmiths' Hall, London
A two-day conference to celebrate the 100th anniversary of the first Gemmology Diploma to be awarded and the 50th anniversary of the Diamond Diploma.

Confirmed speakers include John Bradshaw, David Callaghan, Dr John Emmett, Arthur Groom, Brian Jackson, Dr Jack Ogden and Gary Roskin.

For further details go to:
www.gem-a.com/news--events/events/gem-a-conference-(1).aspx

Show Dates

Gem-A will be exhibiting at the following shows:

Gemworld Munich
25 – 27 October 2013

International Jewellery Tokyo
22 – 25 January 2014

AGTA Show Tucson
4 – 9 February 2014

Stone Scoop

Fingers, seducers and dyes

Dirty digits, old orators, an unsuccessful Romeo, a dead Saint and a coloured rock reveal a humorous side to diamonds and an amusing pseudo-disclosure of rainbow pebbles. Jack Ogden mines some of the funny side of gems.

Brilliant debate

A comment published in the *Cornhill Magazine* in 1872 caught my eye: "The lowest vulgarity is to put a diamond ring on dirty fingers." This reminded me of the comment of one gem dealer who recently observed that diamonds have become common, in the sense of down-market rather than numbers on the market. Whether or not one holds with that, diamonds have long said much about the wearer. In 1720 the humorist Thomas Gordon wrote: "In my opinion there is nothing so necessary in conversation as a diamond ring, though most authors are silent about it. The art of using it is still more necessary than the thing itself. A just extension of the arm… and thereby a proper discovery of the brilliant on the little finger, adds an irrefutable force to every argument; and this I believe is the true reason why the left hand has generally a greater share in every debate than the right."

Ring saga

A gentleman's diamond could work in seduction too — well in theory. In a story by Thomas Brown in 1730, a playboy meets a 'pretty lady' and 'besieges her with his eyes, he ogles at her'. But how to attract her attention? He tried wit and conversation, but she remained indifferent. So, time for the secret weapon. "He had a diamond ring of a considerable value upon his finger and… playing with his hand and holding it so that he might show his diamond more advantageously to the eyes of the fair indifferent, he plays with it." Still no effect and he was "astonished to find a woman insensible to such a beau as himself and such a diamond as his was". Then things changed. She "seized him hastily by the hand to look nearer at the diamond". He takes the ring from his finger and she inspects it closely, and then puts it on. He sees victory, but she, cold as ever, explains that it was her ring. It had been stolen from her by her husband (who pretended he had lost it) to give to a marchioness with whom he had had an affair. The same marchioness had then given it to our Romeo with whom she had also had a liaison. A circle completed, you might say, and a plot that might suit a modern sitcom.

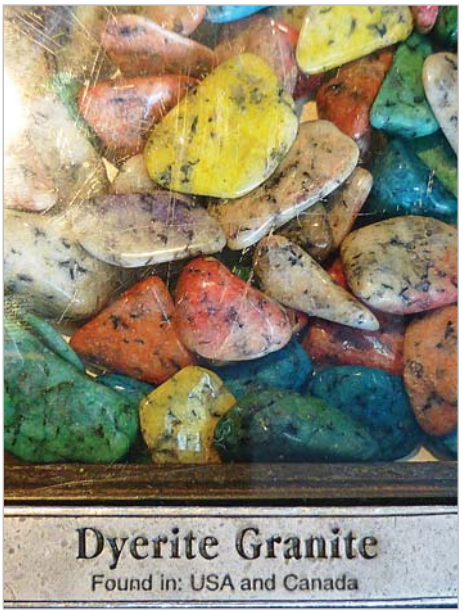
And no reward for our lover-boy — just salt poured upon the wound. The woman has the perfect last word: "I take it for nothing though if I were of a revengeful nature, my husband very well deserves that I should give the same price for it that he received from the Marchioness."

Trade bodies

Diamonds and love may have long been associated, but only recently has it been possible to convert a loved one (human or pet) into a synthetic diamond. How about the opposite? A brief satirical note in the humorous British magazine *Punch* in 1855 reported: "In return for the splendid diamond tiara, value about 2,000,000 reals, recently sent to the Pope by the Queen of Spain, his Holiness has sent her Majesty the body of St Felix the Martyr."

Dyertribe

That's enough about diamonds. Back to coloured gems… excessively coloured gems. In a gift shop in Gatlinburg, Tennessee, I saw a small display of 'Dyerite Granite'. A play of words, of course, on the good geological terms 'diorite' and 'granite'. I'm not sure that name counts as disclosure, but it is certainly ingenious if not amusing. A quick glance at the internet shows that this material is not uncommon in gift shops in the USA, but it is not clear whether purchasers know what they are getting.



A small display of dyed granite as seen in a gift shop in Gatlinburg, Tennessee. Photo Jack Ogden.

Testing dyed granite (just in case anyone thinks some of those bright colours might be natural) is not usually within the realms of gemmology, so we had to turn to advice on checking granite kitchen surfaces, where undisclosed dyeing — though seldom so garishly — is also rife. Seems that a small bit of cotton wool and acetone (nail varnish remover) should do the trick.

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