

Gems & Jewellery

June 2013 / Volume 22 / No. 4



BASELWORLD 2013

Scottish Conference

Coloured Diamonds



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OF GREAT BRITAIN

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TEL: 8610 6527 0094 8610 6527 0096
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Coloured diamonds

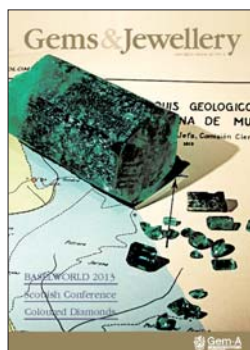
We typically talk about ‘diamonds and coloured gems’, which tends to pander to most of the public’s belief that diamonds are colourless. Of course to a large extent that is true — colourless and near-colourless diamonds make up the vast majority of diamond sales, but it is increasingly impossible to ignore coloured diamonds. They are blossoming in jewellery and displayed in relative abundance at jewellery shows such as JCK Las Vegas (from where I am writing this) and BaselWorld (see page 6). Also, in recent years natural coloured diamonds have shown a significant increase in price (see page 16). Coloured diamonds today cannot be ignored by jewellery retailers or gemmologists. For the former they bring opportunities to engage customers with something new, as well as having less constrained pricing structures. But for jewellers and gemmologists they bring new challenges — or rather new manifestations of the same old challenges. Challenges with nomenclature, treatments and synthetics. How vivid does a pink need to be to become a red? Is it natural colour or has it been irradiated? Is it a natural or synthetic diamond? These issues were considered during an interesting afternoon conference held here in Las Vegas by the Accredited Gemologists Association (AGA). Three speakers — Gary Roskin, John King (of GIA) and coloured diamond specialist Jordan Fine, discussed various aspects of the growth in the coloured diamond market over the last generation as well as terminology, grading and pricing.

When you combine the greater availability of coloured diamonds with their undoubted beauty, Jordan Fine’s enthusiasm about how they can help retailers to be creative with something different and “wow customers with the extraordinary” rings true. But he, his co-panellists at the AGA conference and those exhibiting coloured diamonds in Basel, Las Vegas and elsewhere, would all agree that retailers dealing with these stones require a good understanding of what they are selling and how to describe them, and gemmologists and appraisers need new and constantly evolving skills.

Jack Ogden

Cover Picture

Colombian emeralds (see page 14). Photo courtesy of Ron Ringsrud.



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The Gemmological Association
of Great Britain (Gem-A)
27 Greville Street, London EC1N 8TN
t: +44 (0)20 7404 3334
f: +44 (0)20 7404 8843
e: editor@gem-a.com
w: www.gem-a.com
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Editor
Jack Ogden

Advisory Board
Mary Burland, Roger Harding,
Harry Levy and James Riley

Design and Production
Zest Design +44 (0)20 7864 1504

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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.



Relocation, relocation, relocation

What's in a month you may ask? Well, over the last four weeks my fingernails have become shorter, I have a lot more grey hairs — and fewer hairs in general! The reason for this has been the culmination of some two and a half years' work to secure the future home of Gem-A, either at 27 Greville Street or elsewhere.

Our current home has served us fairly well for 20 years (longer in the case of the lab) but has intrinsic problems due to the building's layout and a distant landlord who doesn't maintain it. Three months ago I would have told you that we had secured a 15-year lease and permission to totally modernize and refurbish the space; in fact I even mentioned it in these pages. Sometimes though things happen for a reason and in this case a last minute attempt by the landlord to change the terms of the lease meant that we had to review our options.

Those of you who know the Hatton Garden area well will realize that there is no shortage of office space to let, but finding 4000 plus

square feet at a reasonable price is not easy. There is no recession here! Sometimes a wander around the area can unearth something which would otherwise be missed. This was the case with 21 Ely Place which happened to have a 'for sale' sign on it. "Gem-A buy?" you may ask. Well yes, and there are a number of very good reasons why. Arguably the Association missed a trick by not buying 20 years ago when it most certainly could have done so. It might have saved a fortune in rent and we would have had an asset just like the NAG has in Luke Street. At least now we won't have to worry about a landlord and will be able to do what we want when we want.

We exchanged contracts on 21 Ely Place on 30 May and by the time you read this we should have completed the purchase. Regardless, we will have left Greville Street by 24 June. Built in 1772 on the site of Ely Palace, home of the bishops of Ely and then the Hatton family, number 21 stands at the end of the street against the wall of Bleeding Heart Yard. It provides ample room for administration, teaching

rooms and finally the space to show off our library. It will take us a little time to make it ship-shape but fortunately there is no major work to be done before moving in.

Some of you may ask how, given that in 2008 Gem-A was making losses, we can afford to make this purchase. It's no secret that our bank has given us a mortgage, but the repayments are less than the rent would be on another property. It will deplete the resources of the charity but the trustees feel that this is a price worth paying for the security and permanence a freehold gives us. However, should anyone wish to make a donation towards the purchase, or a specific part of the building such as a classroom or the library, we would be very grateful. There is the opportunity to sponsor a classroom or piece of equipment and in addition we are giving members a chance to invest in Gem-A's future. You can invest a minimum of £5,000 as a debenture for three years after which time we undertake to repay you plus interest. Please contact me for details on all the above.

In the past donations have not been readily forthcoming, but I hope for such an important reason as this you will consider it carefully. It's your Gem-A and it needs you!

Warm up for the ashes...

My recent trip to the Gemmological Association of Australia (GAA) conference in Melbourne was an interesting experience. The dedication shown by the volunteers who run the GAA at state and federal level puts us to shame. I'm delighted to announce that the Federal Council voted to work ever more closely with Gem-A, and to continue using our course notes and syllabus. Future opportunities lie ahead in the form of cooperating on exams and course development. My thanks go to everyone in Melbourne for making me so welcome and putting up with my presentation!

Gem-A Calendar

Gem-A AGM

Wednesday 3 July at 17:30 for 18:00
Naval Club, 38 Hill Street, Mayfair,
London W1J 5NS

This year Gem-A is celebrating 100 years since the first Gemmology Diploma was awarded and, following the formal meeting and drinks reception, James Riley will give a brief talk entitled '100 not out' on the history of the Gemmology Diploma and the future of Gem-A's courses. Dinner will be available in the Club afterwards if desired (price £45). Further details and the annual report, accounts and other AGM documents are available at: www.gem-a.com.

Gem Central and Career Service evenings

Gem-A regrets that Gem Central and Career Service evenings have been cancelled until the autumn, with the first planned for 9 September. We apologize for any inconvenience caused, but the

sudden opportunity to purchase a new building for Gem-A's headquarters has meant a rapid need to clear our present premises at 27 Greville Street. We look forward to inviting you to events in our new home and will announce dates as soon as possible. For further information please contact: events@gem-a.com

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.

See pages 18 and 19 for further details or go to: www.gem-a.com/news--events/gem-a-conference-2013.aspx

Show Dates

Gem-A will be exhibiting at the following shows:

International Jewellery London

1 – 4 September 2013,
Stand J94

Gem-A is proud to be a Sponsor of IJL

Hong Kong Jewellery and Gem Fair

13 – 17 September 2013
CEC Booth 3M046

Gemworld Munich

25 - 27 October 2013

AGTA GemFair™ Tucson

4 – 9 February 2014

Singapore sling!

En route to Australia I dropped in on our teaching centre in Singapore, the Far East Gemological Institute, run by Tay Thye Sun. Tay has been teaching our courses there for almost 20 years and has in the past had top-scoring students. A really well-equipped school and very keen students.

Fight for your Association

While in Singapore, by chance I passed a shop which turned out to be a gem lab. What alerted me was a 'certificate' which boldly stated 'member of Gem-A'. Gem-A does not endorse any labs and a rather one-sided conversation ensued. Sad to say the individual was not repentant and the authorities have been informed about the misrepresentation. False use of Gem-A post-nominal initials FGA and DGA or coat of arms is very serious, particularly for all of us who pay our subscriptions! We are

currently embarking on a name and shame exercise, so if you see anyone you think is using the initials incorrectly do feel free to check with or report them to our membership department. There are a couple of valuers out there for a start who've not been paying — they know who they are...

CIBJO news

John Henn has already written about CIBJO in this issue of *The Jeweller*. He's right about the climate — it does help. Although I think I only spent about two hours actually outside!

I picked up two messages from this Congress. First, Corporate Social Responsibility (CSR) is the way forward. The Branded Trust Foundation, which presented at CIBJO, has created a step-by-step process to help your business be CSR-compliant. We will be running seminars with them through the autumn and setting up education with them, which will be available through

CIBJO and to all Gem-A ATCs.

Second is that whatever we might think about Africa and the various policies that governments pursue there, the problems are not going to go away. We have to face them and work with the people on the ground to effect change.

Moving on to more mundane matters, I mentioned last month about lead-glass-filled rubies and the EU; CIBJO has set up a special European commission to liaise with the EU on its decisions and is involved in consultation from now until 26 June about the various issues which new EU legislation will affect. On the nomenclature front, CIBJO is also trying to get agreement on a uniform cultured pearl grading system. A tough nut to crack this one – more next year!

Another Centenary

Our congratulations to Dr Jamie Nelson on his hundredth birthday. Our oldest Fellow?

Shows and Exhibitions

BaselWorld 2013

Spring is in the air? It must be Basel. Although largely focused on watches, BaselWorld is still one of the largest jewellery shows in the world, a flagship for the European jewellery industry and a barometer for our trade. Jack Ogden FGA reports on this year's event where Gem-A was exhibiting for the first time in many years.

Palatial marketing

Basel strikes the first-time visitor as a far cry from most jewellery shows. The main halls resemble one of the world's upmarket shopping streets rather than the usual rows of nondescript trade-show booths. The most spectacular, of course, are the million-dollar watch palaces — each costing more than most high street jewellers spend on shop refits in a lifetime. Watches are not alone here — top jewellery brands such as Harry Winston (1) also provide grandeur to the BaselWorld halls. At this level the fair is pure marketing. The big names have to be there, to push their brand image. They measure Basel success by global sales throughout the year, seldom by orders taken during the show itself.

However, at the heart of it, BaselWorld is still a trade show and stands or falls on the basis of sales by exhibitors and visitor numbers — this year there were 122,000 visitors from 100 countries examining the gems, jewellery and watches of 1,450 exhibitors from 40 countries. Most of the visiting buyers are Europeans, of course, and are mostly retailers. It is a show that all European retailers should visit — and many do, at least on an occasional basis. All *should* visit even if for no other reason than to remind themselves that however small their hometown, they cannot exist in a vacuum. Even the most compact market operation is part of a global industry.

Diamonds

For the gem buyer — or gem-lover — BaselWorld is a paradise. The top dealers from around the globe exhibit gems of every

size and colour... and price. Diamonds were of course in ample supply — and many in very large sizes. This is perhaps not surprising as, worldwide, diamonds make up a significant proportion of all jewellery sales — from just over 50% in USA to around 15% in the EU and China — according to figures published in the *BASELWORLD Daily News* (26 April). And despite some economic hiccups in some parts of the world, the diamond market seems set to grow — assuming the supply is there (remembering, of course, that synthetics may be waiting in the wings). What was noticeable in Basel were the large numbers of coloured diamonds, as Gary Roskin reports on page 10 (see also page 15 for Stuart Robertson's comments on coloured diamonds).

Pearls

Cultured pearls, of course, were very much in evidence, with some wonderful South Sea and Tahitian examples (2). Interestingly, natural pearls were particularly noticeable this year with several booths showing a selection. One such was Swiss Pearl with a range of graduated natural pearl necklaces from single up to five rows and vintage jewellery including rings set with natural pearls. Another exhibitor was Merugiri Gems, a Dubai-based gem company which has been specializing in Bahraini and other natural saltwater pearls since 1919. Maitraya Kayvan Sanghvi of Vishrut Gems, Merugiri's associated Mumbai-based company, confirmed to me that the natural pearl market was still strong and prices continued to rise.



1. Harry Winston at BaselWorld 2013. Photo Jack Ogden.

Coloured gems

The top coloured gem dealers can always surprise with their matched sets of gems, perhaps the clearest proof of the care, and often time, that such dealing involves. For example, Constantin Wild of Idar-Oberstein exhibited a wide selection of fine gems including a perfectly matched set of 19



2. Cultured pearls were very much in evidence, for example those shown here in Hall 3. Photo courtesy of BaselWorld.

graduated rubellite tourmalines — ideal for a necklace — plus a further matching pair, presumably for the en suite earrings. Staying with tourmalines, but the very opposite of matched, were those exhibited by Groh+Ripp of Idar Oberstein. Its huge display of coloured gems and fine lapidary work included a range of Mozambique tourmalines exhibiting a startling variety of hues (3).

Among the plethora of coloured gems there were many fine rubies, and closely vying with the Burma stones were those from Mozambique. The finest Mozambique rubies do indeed compare with Burma in terms of colour and the epithet 'pigeon's blood' is now being applied to some — Burma rubies have no proprietary rights to the term (as shown by recent discussions on Gem-A's GemTalk network). Both heated and unheated Mozambique rubies were on show — along with some fine examples

from other sources including Tajikistan. Ron Rahmanan of New York-based Sara Gems, which was exhibiting a fine range of Mozambique as well as Burma rubies, reckoned that over the last three years the prices of the finest Mozambique rubies had increased from about one sixth the price of Burma rubies to one third.

Size may not be everything, but it can certainly create an impression. Examples at Basel included the 'The Imperial Emerald' a very fine quality, untreated, 206 ct Colombian emerald unveiled by Bayco, a New York-Based company. Swiss coloured-gem specialist ALine's offering included a 104 ct tanzanite and a 269 ct peridot. That was by no means the largest tanzanite on show — Paul Wild of Idar-Oberstein had one of 735 ct, believed to be the largest faceted example.

Trends

The collectors' market — few would actually wear a 700 ct tanzanite — is an important and growing section of the gem trade, but how about the more practical 'jewellery' gems? How were they selling? As is so often true, the answer you get depends on who you ask. At shows some are always optimistic, others are always moaning, but even so it would seem that there were mixed results. One exhibitor, who wished to remain anonymous, said all demand was for high end and that his mid range was selling less well. Possibly we can detect a trend where those not in the market for a top sapphire, ruby or emerald, prefer not to buy a run-of-the-mill example, but go for a fine and interesting tourmaline or other coloured gem. Coloured gem dealer Charles Abuchar of Geneva also noted a focus on gems other than sapphire, ruby and emerald. We can note that almost without exception dealers refer to gems other than these 'big three' as 'semi-precious'. Despite official condemnation of the term by CIBJO and others, there really is no other easy way to collectively describe the vast, and often anything but inexpensive, range of gems other than sapphire, ruby and emerald.

Lessons

There were two further comments that were continually being made at BaselWorld. One was that Chinese and Russian buyers were thinner on the ground than had been expected and the second was that Basel was really a very expensive place to exhibit. Many felt that for gems Basel now had little to offer over the September Hong Kong Show — a far less costly venue and far closer to the growing Chinese market. For their side, the BaselWorld organizers were quite prepared to admit that they were seeking quality not quantity in their exhibitors; no wonder that some of the smaller and non-European gem dealers present felt a little unwanted. Perhaps there is a lesson to be learned here. Retailers in the market for major watch or jewellery brands might be impressed by, even bask in the reflected glory of, their imposing installations (can't really call them booths) — and the free Champagne and canapés — but those buying loose gems and diamonds are, I imagine, less swayed by such ostentation and, if quality, size and price are right, would be just as happy to buy in far simpler surroundings — Hong Kong for instance.



3. Mozambique tourmalines in an impressive range of colours displayed by Groh+Ripp of Idar-Oberstein. Photo Jack Ogden.

Is it an emerald?

“Is it an emerald/ruby/sapphire/diamond?” must be the most common question asked of anyone who tests gems. Grenville Millington was presented with just such a query when he was confronted with a paper packet containing a large green faceted stone.

Very often the unknown stone that is the subject of this question is rather small, perhaps up to one or two carats in weight, but this particular one was around 37 mm in length and quickly sent my electronic scales up to the maximum figure of 50 carats. I would estimate that the stone’s weight was well in excess of 100 carats, maybe closer to 200.

The size alone threw suspicion on the identification of the stone as emerald, but it was a good, lightish emerald green, such as that seen in a lot of commercial Colombian emeralds. And it showed pink under the Chelsea Colour Filter — of the equivalent tone expected of this colour Colombian stone. There was also noticeable zoning with something like 60° angles visible to the unaided eye and since emerald forms as hexagonal prisms one might excuse a non-expert for asking: “Is it an emerald?”

Our good friend the refractometer could possibly supply the answer, and it didn’t let

us down. The clear reading was a single one at 1.434. This stone was a fluorite (also called fluorspar). On two or three occasions in the past I have had dealers offer me parcels of such light emerald-green stones as ‘emeralds’, but certainly no stone was even approaching this one in size.

Although emerald belongs to the hexagonal system, colour zoning is not all that common and hexagonal zoning even less so. Therefore, the planal zoning in this stone, although it might help convince the less experienced jeweller, actually made the stone appear suspicious as an emerald and certainly would throw people off the true scent (fluorite belongs to the cubic crystal system).

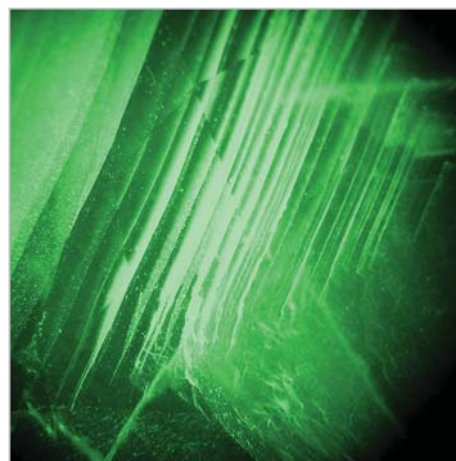
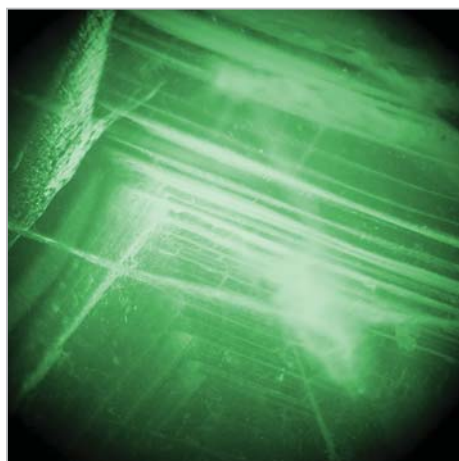
I had just enough time to take a few photos of the stone before the customer returned and the result of ‘fluorite’ saved me from answering the inevitable second question, should the answer have been ‘emerald’, namely: “What’s it worth?”



Large green fluorite, 37 mm in length

About the author

For many years Grenville Millington ran his own gem and jewellery business and taught gemmology and retail jewellery at the Birmingham School of Jewellery



The ‘hexagonal’ zoning photographed from various angles. Magnifications approx. 20x.

John Kessler donation

Gem-A instructor and collections curator Lizzie Gleave FGA reports on a recent donation of gem and mineral specimens from London-based gem-dealer John Kessler, which has provided us with a rich and varied range of materials for the Association's teaching and reference collections.

Gem-A's teaching collection helps to keep students and staff up-to-date with the latest finds, treatments and synthetics. Some donations come to us as they are discovered, others have been collected over many years. It is one of these carefully-amassed collections that we were asked to collect at the end of March 2013.

We arrived at John Kessler's office in Hatton Garden with some boxes and packaging, not quite knowing what we were going to unearth; so we were thrilled to be presented with a wonderful range of specimens collected throughout John's long career as an emerald dealer. Much of this time was spent in Brazil and a considerable amount of the collection had been gathered during his travels there. Some select pieces he kept at his home and office before generously donating the collection to Gem-A, with whom he has had a long association.

Among his emerald specimens are examples from Colombia (1) and Brazilian mines including Itabira and Campo Formoso. Provenanced gems such as the latter are increasingly important as reference material for origin determination. Perhaps not surprisingly, as a personal memento John has kept a fine emerald crystal from Nova Era, a Brazilian mine in which he once owned shares.



1. Emerald crystals in matrix. Colombia.

Pieces range from well-formed mineral specimens such as pink, orange and pale blue topaz to delicate and exquisite crystal groups. One pegmatite from Brazil houses two aquamarine crystals within feldspar and quartz. Other pieces range from specularite (hematite) from Cumbria (2) to an extraordinary aggregate of amethyst (3), plus examples of stone carving and even fossils. My favourites are the snowball-like geode of rock crystal from Morocco and a 4.74 ct pale yellow emerald-cut scapolite (4).



2. Specularite and quartz from Cumbria, UK.

Gem-A is always happy to receive donations and bequests from dealers, collectors and its members. As James Riley, CEO, explains: "Gem-A has received many donations over the past 100 years, ranging from the collections of Herbert Smith and Basil Anderson through to the Neville Deane collection, as well as access to the South West Trust collection of gems from the collections of Ron Yeo and Eric Bruton. Each offers a unique insight to a specific epoch and area of gemmology making Gem-A's collection among the most diverse



3. An amethyst aggregate.

and valuable in the world. Donations are welcome especially if they exemplify a specific area or represent an area which is weak in our collection."

We hope that it will be possible to display a larger selection of our collection at our headquarters in the future.

Gem-A would like to thank John for his generosity. If you would like to offer a donation to Gem-A, or make a bequest, please contact info@gem-a.com or call reception on 020 7404 3334. Gem-A is a registered UK charity and donations by UK tax payers may be eligible for tax deductions – please ask your financial advisor for details.

All photos by Henry Mesa Bedoya. © Gem-A



4. An emerald-cut scapolite of 4.74 ct.

The flight of the fancy

Fancy colour diamonds are more popular than ever. But the supply and demand disparity is creating an ever-increasing valuable commodity, popular with jewellers, consumers and — dare we say it — investors. Gary Roskin reports on the fancy colour diamond market as noted at BaselWorld 2013.

The first thing you will hear from many of the industry's leading diamond suppliers when asked whether fancy colour diamonds should be considered a monetary investment is that it's an investment in beauty and enjoyment. And then they might add that of course, the larger diamonds — coloured or colourless — are very good monetary investments.

Over the past several years, we have watched record prices being paid at auction for spectacularly important fancy colour diamonds. For example, just within the past few months:

- The Princie diamond, 34.65 ct Fancy Intense Pink: \$39.3 million (\$1.1 million/carat)
- A 10.61 ct marquise-shaped Fancy Light Pink: \$1.2 million (\$118,856/carat)
- A 5.3 ct Fancy Deep Blue: \$9.6 million (\$1.8 million/carat)
- A 10.95 ct Fancy Yellow: \$353,000 (\$32,000/carat)
- A 2.35 ct Fancy Orangey Pink: \$293,000 (\$124,000/carat)
- A 1.37 ct Fancy Blue: \$425,000 (\$310,000/carat).



For chocolate diamond lovers — a variety of flavours, including a 29.60 ct Fancy Deep Orange-Brown radiant cut; a 13 ct Fancy Dark Brown round brilliant; a 3 ct Fancy Dark Reddish-Brown pear shape and a 35 ct Fancy Pink-Brown pear shape, from Galaxy USA, New York. Photo Gary Roskin.

The Princie — well, that was the highest price-per-carat ever paid for a Fancy Intense Pink. We do not know who paid that kind of price, but it was obviously impressive. And so was the size — almost 35 ct! And then there was the \$1.8 million paid for a blue, the highest price-per-carat ever paid for a Fancy Deep Blue. The buyer of this gem was London's Laurence Graff, who had set the previous record for Fancy Deep Blue when he purchased the Wittelsbach in 2008, at approximately \$685,000 per carat. At just a little over 5 ct, it certainly wasn't a huge diamond, but for a Fancy Deep Blue, 5 ct is a pretty nice size. You can see a 5 ct diamond from across the room — and that's important if you're spending that kind of money.

Of course, with all of the hoopla with these ever higher and higher record prices being paid at public auction, suppliers and consumers are noticing fancy colour diamonds.

At the show

BaselWorld showed us evidence from the moment we entered the gem hall that fancy colour diamonds are going to play an even more significant role in the diamond sector for the coming year. Of course, the round brilliant colourless and near colourless diamond will always be the best seller, but you would have been hard-pressed to walk through Hall 3 (the loose gem pavilion) to find a diamond exhibitor who didn't have some inventory of fancy coloured diamonds.

We expected to list maybe a dozen fancy colour diamond suppliers in our daily report on these particular stones, but we ended up jotting down no less than 42!

So why is there such a big surge in suppliers without a big surge in supply? No-one better to ask than Derek Palmer, global marketing director of one of the largest international diamond manufacturers, Pluczenik, Antwerp.

What he told us was that jewellers and consumers are creating a far greater demand for the rare and beautiful gems. And even though he notes that large important diamonds in any colour are the gems you should buy, he does certainly acknowledge that fancy colour is a good investment. "Price increases for 10-plus carats are being looked at for investment portfolios," he says. "More brokers today are looking towards these big and beautiful diamonds to diversify one's investments."



Showing the range of the Vivid category, we have two Fancy Vivid Yellows, one, a 6.55 ct emerald cut, the other, a 53.25 ct modified emerald cut, from Cora International, New York. Photo Gary Roskin.

Yes, Palmer is talking of a monetary investment. With an uncertain world economy, those who have money and know diamonds feel rather certain that large important diamonds, including fancy colour ones, will make an important element in a diverse portfolio. Of course, he's not all about monetary investment. "Fancy colour diamonds give you flexibility in the way you can use your wealth — you can wear them," he smiled. "Wearing your house just isn't going to work now is it?"



Richard Vainer of M. Vainer, London, shows us this magnificent gem, a 4.04 ct Fancy Vivid Blue-Green. This incredible gem comes with a GIA monograph — a very exclusive report issued only for very extraordinary gems. Photo Gary Roskin.

Pursuing the parcel

Even though Pluczenik, like other firms, is always chasing an ever-dwindling supply of especially rare diamonds, Peter Martin, who is communications director, placed a 15 ct Fancy Vivid Yellow heart-shaped diamond in front of me. It was absolutely stunning from top-to-bottom, side-to-side — vivid saturation of colour everywhere. "This is Mother Nature — a miracle — and it will hold its value. And as its rarity increases, so will its value," he said.

But you have to find the goods. Retail jewellers were shopping, but so were suppliers. Throughout Hall 3, and even into Hall 2 — the Finished Jewellery Hall — you would walk by showcase windows full of fancy colour diamonds and see retailers and suppliers looking in. What they were seeing were mostly large Fancy Yellows. The Novel Collection had a display of large cushion cut Fancy Intense Yellows, including a 25.19 ct, a 25.16 ct, a 13.88 ct, and a 10.03 ct, with a 14.13 ct Fancy Vivid Yellow cushion in the middle of the display.

These are good sizes, but if you think these are big... well, we saw a square cut brilliant in the window at André Messika — a Fancy Intense Yellow weighing in at well-over 83 ct.

Besides the display of large cushion intense yellows, the Novel Collection was featuring a very large Fancy Intense Yellow (almost 40 ct) cushion brilliant in a ring, as well as a magnificent necklace highlighting a very pretty 14 ct Fancy Brownish-Pink emerald cut. The latter was set into rose gold, which a lot of designers are using today to enhance the pink and complement the brown. You will see this in everything from high-end to commercial jewellery lines that use brownish-pink melee.

Richard Vainer of M. Vainer, London, brought out an exquisite gem — a 4.04 ct Fancy Vivid Blue-Green. "We have a great deal of confidence in fancy colours, particularly in the Argyle pinks," he said. "As you know, the mines will, some time in our lifetime, end production. This will also happen with the blues, which are primarily coming from the Premier mine. In general, we see a lack of quality



Following the yellow diamond road, Manak, San Francisco, has diamond slices in yellow and colourless in a variety of sizes. Manufacturing jewellers use these diamond slices to create affordable yet eye-catching earrings, rings and necklaces, getting the large look without having to use larger more traditionally-cut diamonds. Photo Gary Roskin.

Gems and Minerals

in the more saturated primary colours, causing the finest material, in the end, to be very limited.”

So is that one of the reasons Graff paid so much for the Fancy Deep Blue?

High value, but are they selling?

“Fancy colour diamonds are certainly centre stage right now,” said Leibish Polnauer, president of Leibish & Co. “There are so many different places to invest your money today. But if a person were to have purchased a 3 to 5 ct Fancy Vivid Blue or Pink 15 years ago, today those diamonds would be worth at least seven times their original value. You could buy gold, platinum, stocks or bonds, but with the exception of Impressionist art, nothing can touch fancy colour diamonds.”

Leibish knows that because of limited resources and a growing demand, partly brought on by the fashion industry, fancy colour diamonds will continue to climb in value. “Another reason for fancy colour diamonds to be such a good investment is that fancy colours are not traded on the Rapaport list,” said Polnauer. “This means that there is more mobility for manufacturing and retail jewellers to help their brand. Jewellers today have a difficult time making a profit, with colourless diamonds being traded by the list becoming more of a commodity every day.” But with fancy colour, everyone has the opportunity to make a living. “Yellow diamonds sell very cheaply,” he added. “A 5 ct colourless H/VS1 is priced at \$30,000/ct, where a 5 ct Fancy Yellow is priced at 50 per cent less, at \$15,000/ct.”



Also utilizing fancy colour faceted diamond slices, Oriental Gemco, New York, featured numerous flashy, colourful and very affordable diamond jewels.
Photo Gary Roskin.

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.

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The Scottish Conference

The Scottish Gemmological Association Conference 2013 took place over the weekend of 3–6 May at The Hydro, Peebles. The full programme of presentations, workshops, social events (including the famous Ceilidh) and a gold-panning excursion attracted participants from many parts of Europe and North America as well as the UK. A synopsis of the presentations is given here.

Pearls

The Conference began on the Friday evening with registration and refreshments followed by a talk by Clare Blatherwick (head of jewellery and silver, Bonhams, Scotland) on 'Pearls under the Hammer'. In recent years natural pearls have enjoyed a huge resurgence in interest with increasingly high prices being realized. This trend has been particularly noticeable with pearls coming up for auction at the major international auction houses. The high esteem in which natural pearls are now held mirrors that in the past; up to the 1920s the then new cultured pearls disrupted the market followed by the Great Depression which dealt it a mortal blow.

After a brief history of pearls, weaving through Roman, Hindu, Medieval European, Renaissance and Islamic periods, up to their heyday in the late nineteenth and early twentieth centuries, Clare described the various types of pearls on the market and some of the prices obtained.

Non-nacreous pearls lack the lustrous surface of nacreous pearls, having a more porcelain-like appearance. The best known non-nacreous pearls to appear at auction are conch pearls and so far these cannot be commercially cultured. The best examples are pink with a distinct flame structure, which is due to the needle-like aragonite formation. Prices can be high. As an example she described a Fine Pink conch pearl of 6.36 ct coming up for auction at Bonhams' sale in Los Angeles of 'Gems, Pearls, and Exotic Gemstone Jewelry' on 21 May which is estimated at \$17,000–\$20,000. A whole necklace of conch pearls had fetched

\$1.46 million at a Christie's auction in Hong Kong in December 2012. Melo pearls, from the shell of the trident sea snail are also collected and can occur up to golf-ball size. Another type of non-nacreous pearl is the clam pearl; these can also have an attractive flame structure and, again, prices can be high. A fine example weighing 7.18 ct

also coming up for sale at Bonhams' Los Angeles auction, is estimated at \$6000–\$8,000. Quahog pearls, from the quahog clam, are also collected, but the most highly prized non-nacreous pearls are those from the nautilus which are extremely rare — so much so that Clare wondered if many gem labs had the experience to spot them.



A matched pair of Fancy Intense purplish-pink diamonds, weighing 1.01 ct (see 'The gem market' pages 15 and 16). Photo courtesy of Stuart Robertson.

Recent Events

Nacreous pearls are either sea water or fresh water, and both types are being cultured. Chinese cultured freshwater pearls are seldom of sufficient value to appear at auction, but Biwa cultured pearls can be more valuable. The Japanese are now culturing beaded freshwater pearls. Natural freshwater pearls include the well-known Scottish ones and also those from the Mississippi. Fine examples of the latter can fetch very large sums at auction.

Of saltwater cultured pearls, mid-twentieth century graduated rows of Akoyas at auction seldom realize much more than about a seventh of their retail price. South Sea and Tahitian cultured pearls do well, but Bonhams now describes them as cultured pearls with a colour descriptor due to concerns in respect of treatments.

Natural saltwater pearls are doing extremely well at auction and prices have risen considerably in recent years. Famous examples include the Baroda and Dodge pearls. The two-row Baroda pearl necklace sold for just over \$7 million in 2007 and Bonhams sold the Dodge pearls for \$600,000 in 2008. Although, as Clare pointed out, the Dodge pearls sold by Cartier in the 1920s, were, in relative terms, more highly valued back then than now. The main buyers now are Indian and Far Eastern collectors and investment companies.

Emeralds of Colombia

In his talk on 'Emeralds of Colombia: Gemmology and Grand Schemes', emerald dealer and author Ron Ringsrud began by encouraging all to visit Colombia and its emerald mines. The republic has had a troubled past, with more displaced people than any other country apart from Syria. However, in recent years the crime rate has fallen dramatically — it is now lower than Washington DC — and with greatly increased tourism and foreign investment. The recent death of Victor Carranza, the 'emerald czar', was feared likely to cause power struggles and destabilize things, but so far there has been a smooth transition that the Colombians are very proud of. The situation at the emerald mines is now ripe for increased foreign investment with, for

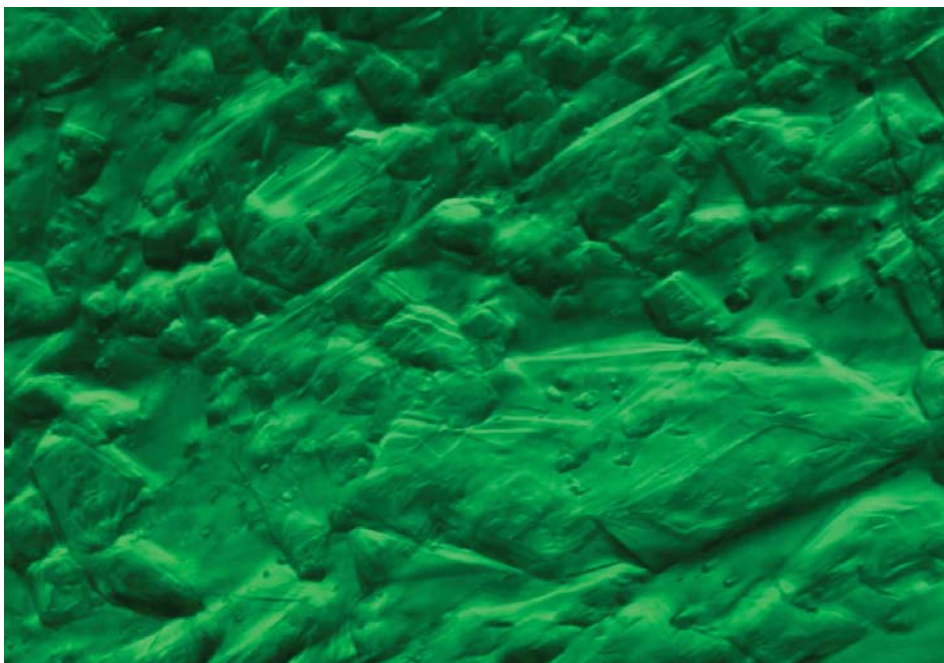
example, Gemfields said to be investigating the potential. There are three main emerald mining areas in Colombia within a few kilometres of each other; these are Muzo, La Pita and Coscuez, all just around six hours by car from Bogota. Chivor, an emerald mining area of historical importance in another region, has seen only sporadic production in recent years.

Ron explained that the emerald expert and connoisseur sees the allure of Colombian emeralds that cannot be analysed or easily put into words. In particular there is the *gota de aceite* (literally 'oil droplet'), the natural honey-like effect as also seen in hessonite garnets. This softens the look of a stone and is appreciated by buyers. In the 1940s Dr Gübelin suggested that this effect was due to the presence of calcite, but Ron, working with John Koivula, was unable to find any traces of calcite and considers the effect a growth feature.

The main treatment seen with emeralds is filling, ranging from oil to hardened polymers. Filling is sometimes revealed by the blue or orange flash effect, orange being seen when the stone is viewed with dark-field illumination and blue when the background is transmitted light. The presence

of a flash effect depends on the type of filler present and Ron reckons that only about a third of filled emeralds will reveal a flash effect when examined with a 10x loupe. He also warned about false flash effects, giving as an example a blue flash that was actually the blue sky reflected off the tweezers. A flash caused by a filler will be seen in a fissure that is parallel to your line of sight; on the other hand a natural iridescence may be seen with a unfilled fissure that is at right angles to the line of vision. The use of coloured fillers is not considered to be a problem since it is so easy to detect, even with a loupe. It is not very common because extremely narrow fissures reduce any liquid to colourless. To cause any discernible deepening of colour, an emerald would have to be crazed. So far 'composite' emeralds, that is emeralds held together by epoxy, have not been noted. The radiation treatment of emeralds, first flagged in early 2011, seems not to be a significant threat; the treatment is easy to detect and, besides, the resulting colour is too yellow, more like poor peridot.

Emerald buyers at the buying offices in Bogota rely on loupe and tweezers and have to learn to judge quality and recognize filling.



The sought-after *gota de aceite* effect in a Colombian emerald. Photo courtesy of Ron Ringsrud.

The first stage in examination is to look at every flat facet using reflected light so that surface-reaching fissure openings can be seen. Once fissures or fractures have been located, transmitted light, ideally darkfield, can be used to judge their extent, see if fillers are present and decide whether they affect the stability of the stone. By Ron's definition, a fissure does not affect the stability of a stone... a fracture does. Judging the extent of filling requires considerable experience and involves deciding the extent to which face-up appearance would change if all the filler was removed.

Prices for fine emeralds are increasing. Ron pointed out that six years ago it was rare to find an emerald selling at more than \$10,000 a ct; now prices of \$20,000+ are being seen often with \$70,000–\$80,000 being achieved at auction.

Opals of Ethiopia

The subject then moved to another continent when Dr Claudio Milisenda, director of the German DSEF Gem Lab, spoke on Ethiopian opals. About a dozen years ago opals were discovered on the Shewa plateau in Ethiopia, in rhyolite nodules. Some of these exhibited a play of colours but others were more like fire opal. However their poor durability made them unsuitable for use as they readily crazed. Then in 2008 opals were also found in Wollo province, Ethiopia, which appeared to be more stable and thus more suitable for jewellery use. The Wollo opals are found in a number of small deposits in a single stratigraphic level, but mining, although basic, is very dangerous.

The opals from Wollo range from almost totally transparent to milky and many show a fine play of colour, with reds being more common than blue, the exact opposite of Australian opals. Some contain inclusions of organic plant materials and study of the carbon from these show that the opals formed near the Earth's surface. The Wollo opals are also hydrophane — that is they absorb water. After drying, the opals that have been soaked in water regain their previous appearance, but more permanent changes can be made, deliberately or accidentally, if



*Examples of Ethiopian opals.
Photo Courtesy of Claudio Milisenda.*

they come in contact with liquids other than water, such as dyes or oils. This means that the Wollo opals can easily be dyed, and Claudio demonstrated this with opals dyed in various liquids including copper sulphate solution and, especially for the Scottish conference, Scottish whiskey. The Wollo opals can also be darkened with the sugar and acid treatment, as long-used on agates, and can be 'smoked' to make them darker and give greater contrast to the play of colour. Smoking had been used since the 1970s for Mexican opals. Various treatments are being used to stabilize Wollo opals, including polymer impregnation. Stabilised opals can often be detected by their white fluorescence under longwave ultraviolet light. In general FTIR is the best guide to the presence of treatment.

Although the discovery of the Wollo opals rejuvenated the global opal market, sales are still restrained by worries about long-term durability. There appears to be no correlation between stability and gemmological properties although the transparent material tends to break more readily than the milky. Perhaps not surprisingly Wollo opals are sometimes misrepresented as Australian opals. Wollo opals can often be distinguished by their columnar structure, providing that this is not confused with the 'lizard skin' effect of synthetics. A characteristic of Wollo opal is dispersed pyrite inclusions in the form of small black cubes. Pyrite inclusions have been noted in some Australian opals, but these tend to be in clusters.

The gem market

An overall survey of the current market in gems was presented by Stuart Robertson, research director of Gemworld International Inc., in a talk titled 'Gem market trends and other illusions from the trade'. In recent years high-end gems have been selling well, but the middle market has been doing poorly. This reflects the general economy where, in the USA, some 90% of households have seen a fall in income over the last few years. At the top end, the rich are getting richer. The same trend seems to be true in the UK and other mature economies. Over this same period the number of US independent jewellery retailers has fallen, the number of chain stores selling jewellery increased and rising precious metal prices have driven many retailers to alternative materials. The net result is that too many jewellery stores are competing for customer share with too similar items that do little to inspire buyers.

With coloured gems, the high end is doing very well. Prices for finer qualities have increased dramatically in the last few years with ruby and sapphire in particular becoming almost unaffordable to the middle market. Emerald, aquamarine and tourmaline prices have also increased. Stuart noted that although the very wealthy will always be able to buy fine gems, they do not drive the market (the middle class does) and jewellers really need to educate customers about more affordable gems, such as spinel, although even here prices seem set to rise.

A market that has been growing in recent years is that for coloured diamonds, with prices rising significantly. This is in contrast with white diamonds where, in smaller sizes, prices have declined and, with many major producers pulling out of diamond mining (to focus on the more profitable 'rare earths' and industrial minerals sectors) the long-term future is very unclear. The increasing interest in coloured diamonds may have been prompted after 1990 when Argyll began to market its pink and 'champagne' diamonds. Yellows are the most available of coloured diamonds and there is a large market for them. Yellow diamonds in the 2.5–10 ct range have doubled in

Recent Events

price over the last five years, larger sizes even more, but sizes under about 2 ct have weakened in price. Stuart attributed this fall to inexperienced dealers entering the market, being unable to sell and now dumping inventory. He reckoned prices are set to rise again soon. Pinks are also popular, but are far rarer than yellows and the deeper pinks are usually only seen with stones under about half a carat. Larger pinks generally have less high colour grades.

With coloured diamonds, rarity drives prices more than beauty and subtle differences in colour can greatly impact on prices. Colour modifiers have a huge effect. For example, a pink modified by brown may be worth half the value of a pink without the brown modification. The prices of light pink diamonds correspond to whites in the D–F range, very light pinks with those in the G–H range. In general terms, the value of coloured diamonds in order from low to high, is fancy white (not to be confused with white or near colourless diamonds), black, grey, brown, yellow, orange, green, blue, purple, pink, red. Prices seem set to rise, but buyers need to be aware of synthetics and treatments, the latter including the often non-disclosed coating.

A history of gem cutting

A historical perspective was given on gems by Dr Jack Ogden (Gem-A) in a talk about the history of gem cutting, titled 'Lap Dancers and Drill Masters'. The development of gem cutting over the passing centuries has to be seen in the context of the technologies and materials available to the craftsperson. With gem cutting this was primarily linked to the availability of abrasives and new ways to apply them. Flint and sand formed the ubiquitous gem working tools in earliest times. Flint could be used to drill, cut and scrape; sand or sandstone to shape and polish. Flint points could be used to drill and engrave gems as hard as hardness seven on the Mohs' scale, but drilling this way was laborious and narrow perforations impossible to achieve. With the increasing use of copper and copper alloys in the third millennium BC, narrow copper rods could be used with sand to drill smaller holes. Such



Elaborately cut sapphire in a ring dating to ca. 1600 – 1640. Cheapside Hoard, London. Photo Jack Ogden, used by kind permission of the Museum of London.

drilling was carried out with a bow-powered drill. By some time in the early second millennium BC the abrasive emery (a non-gem variety of corundum) began to come into use in the eastern Mediterranean and Western Asia, making it far easier to work gems of the quartz family — the commonest materials for gems in the ancient world. About the same time a gem cutting and engraving wheel came into use in some areas with a horizontal spindle powered by a bow.

By about 500 BC diamond chips from India were being used to drill beads and scratch fine lines in engraved designs. Over succeeding centuries harder gems could be worked, including emerald and sapphire, but it seems that diamond dust was not used for polishing gems until after the Roman period. Facets could be polished by rubbing a gem on a flat surface with emery powder, a process described for amethyst in the twelfth century, and it is possible that the first steps in diamond cutting were carried out around this time, in this way, using diamond dust. However, the great step forward in diamond and gem cutting came with the introduction of a gem-cutting wheel with a horizontal table, and crank-operated continuous rotary motion — something not possible with bow-powered machinery. The adoption of

crank-operated craft machinery, although known far earlier, was a major feature of the fifteenth century, the period when more precise faceting of diamonds and other gems became prevalent. By the seventeenth century, with growth of the European gem trade with South America and India, very precisely-faceted gems, including diamonds, sapphires and rubies, were in use — as witnessed by magnificent examples in the seventeenth-century Cheapside Hoard in London. In the eighteenth century diamonds from Brazil entered the European market, and brought with them quantities of industrial quality diamond (boart), which had never been that common, from India or Borneo — previously the only sources of diamond. Thus in the eighteenth century, diamond and coloured gem cutting reached a pinnacle of perfection that was not superseded until very recent times.

Summaries of Chris Smith's talks on spinel and tanzanite will appear in the next issue.

rock, gem & bead shows 2013

22nd/23rd	June	Bath & West Showground, Shepton Mallet	(Rock'n'Gem)
06th/07th	July	Newcastle Racecourse, Newcastle upon Tyne	(Rock'n'Gem)
13th/14th	July	Farnham Maltings Gem Show, Farnham	(Gem'n'Bead)
03rd/04th	August	Kempton Park Show, Kempton Park Racecourse	(Rock'n'Gem)

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Coloured stone grading and pricing workshop II
Update on grading coloured gems with new grading methods and information
- ④ **Arthur Groom**
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- ④ **Craig A Lynch CG**
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- ④ **John Bradshaw CG**
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- ④ **David Callaghan FGA**
In the beginning...
The history of the London gem lab
- ④ **Dr John Emmett**
The colour of corundum:
A search for the soul of a peacockeocha
- ④ **Dr Emmanuel Fritsch CG**
Luminescence – what's in a word
Luminescence in gemmology from basic UV to photoluminescence in HPHT treated diamonds
- ④ **Arthur Groom**
Emerald clarity enhancement
- ④ **Brian Jackson FGA DGA**
Scottish gemstones
- ④ **Dr Jack Ogden FGA**
Treasure, traders and trickery:
The Cheapside game in context
- ④ **Sonny Pope**
The future in coloured diamonds:
An introduction to the HPHT multistep process
- ④ **Martin Rapoport**
The state of the diamond industry
- ④ **Cery Roekin FGA CG**
Mastering the challenges in diamond grading
- ④ **Shelly Sargent**
Somewhere in the Rainbow™ Toto, we're not in Kansas anymore!
A look at the celebrated Somewhere in the Rainbow™ gem and jewellery collection
- ④ **Dr James Shigley**
The evolving challenge of gem identification

EVENING SATURDAY 2 NOVEMBER

Anniversary Dinner

EVENING SUNDAY 3 NOVEMBER

Graduation Ceremony

Guest speaker:

- ④ **Martin Rapoport**

MONDAY 4 – TUESDAY 5 NOVEMBER

Exhibitions & Visits

Private viewings will be held at London museums, including the Cheapside Hoard collection at the Museum of London, the forthcoming 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.

To find out more about all of the above visit

www.gem-a.com/news-events/gem-a-conference-2013.aspx

Bearing straits

Jack Ogden FGA recounts an intriguing fight over watch jewels

The presence of jewels in watches is taken for granted these days, the hard little gems being perfect as durable and near friction-free bearings. However, early on in their history they were the subject of a conflict that went all the way to Parliament — a conflict in which gem cutters played a part and British clockmakers may have behaved rather badly.

The problems in France in the later 1600s had helped invigorate British industry with an influx of protestant Huguenot refugees including some remarkably skilled jewellers, silversmiths and watchmakers. Such were two Huguenot watchmakers who settled in Soho at this period — the brothers Peter and Jacob De Baufré. On 1 May 1704 they, plus the Swiss mathematician and scientist Nicolas Facio (also known as Nicolas Fatio de Duillier), were granted a patent for the use of jewels in watches and clocks. Indeed, in March 1704 Facio had exhibited examples of watches incorporating such bearings at the Royal Society. It seems that he had invented a way to drill precise and smooth depressions in rubies and other gems so that they could act as near friction-free bearings. The process is assumed to have involved a treadle lathe and a diamond drill.

The whole and rather lengthy title of the patent is: 'An Art of Working Pretious or more Common Stones (whether Natural or

Artificial) Christal or Glass and Certain other Matters different from Metals; so that they may be employed and made use of in Clockwork or Watchwork and many other Engines not for Ornament only, but as an Internal and Usefull part of the Work or Engine itself, in such Manner as have not heretofore been used, and that said Art will be beneficial to the Trade of Making Watches and Clocks.' (Patent 371 of 1704). As usual at that period, the text of the patent provides no details of the invention; in this way the new process could be kept secret.

Shortly after the patent was granted the De Baufré brothers and Facio decided that the 14 year period of exclusivity granted for a patent was not long enough to allow them to gain sufficient financial benefit. Thus they presented a petition to Parliament in which they requested "a longer term of years" for their patent. This petition was opposed by the Clockmakers' Company who stirred up an opposing petition "on behalf of them-selves, and all the Watch-makers and Clock-makers throughout the Kingdom". And they produced a trump card — a watch by the London watchmaker Ignatius Huggerford which had 'a stone fixed in the cock and balance work". A William Scale attested that he had sold the watch "before the date of the Patent". This watch, dated to 1671, is still owned by the Worshipful Company of Clockmakers in London.



In this jewelled bearing from a late-eighteenth – early-nineteenth century watch, a pierced ruby is backed by a rose diamond. Kindly loaned by the late John Day and identified by Nigel Israel and Jonathan Betts. Photo Jack Ogden.



Jewel bearings used for a balance wheel in a modern mechanical watch movement. Photo by Hustvedt used under Creative Commons License, see <http://creativecommons.org/licenses/by-sa/3.0/deed.en>

The Clockmakers also gained the support of a further petition from the “Jewellers, Diamond Cutters, Lapidaries, Seal Cutters, Engravers on Stone, and others dealing in Jewels, and Precious Stones and more common Stones, in and about the Cities of London and Westminster”. This petition stated that these craftsmen considered that any lengthening of the patent would “in a great measure, infringe upon the Practitioners in their several Arts and Trades, and abridge them of working and applying Jewels and Stones in many things”.

A specially constituted Parliamentary Committee considered the arguments for and against extending the patent and decided against an extension and the Master of the Clockmakers’ Company recorded that Ignatius Huggerford’s watch had been “of great use to satisfy the Committee”.

It was only later revealed that the jewel in Huggerford’s watch did not actually pre-empt the patent and suspicions arose as to whether the clockmakers knowingly perpetrated a fraud. On the other hand one wonders whether the acceptance of Huggerford’s watch as evidence rendered the whole patent invalid since the patent includes the clause that it will cease if “it shall be made apparent to us... that the said Invention is not a new invention...”.

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Stone Scoop



Coral

The ecological concerns with regard to coral have been discussed before in this magazine, so here, at the risk of appearing insensitive to the current challenges, Jack Ogden FGA casts an eye back on coral in the nineteenth century.

OK coral

Then, as now, there were mixed feelings about coral. At one end of the scale, critics waxed lyrical about the beauty of the finest pieces. A commentator reporting on the Dublin International Exhibition in 1865 described a suite of coral jewellery exhibited by jewellers Aubert and Linton of Regent Street, London: "Coral, to be rare and valuable, must be of a delicate pinkish hue, uniform in tint throughout, and in large pieces. This suite consists of nothing but such; and so rare is coral answering this description that Signor Gismondi, the designer and carver of this set of ornaments, is said to have been twenty years collecting the pieces inserted therein." The suite in question consisted of 'tiara, bracelets, solitaires, comb, earrings, brooch, necklace, and pendant' and was priced at £1,000, a huge sum in those days.

Debris of a lobster

Just a few years after the previous piece was written, the journalist George Augustus Sala expressed his less favourable thoughts on coral. In his notes on the Paris Exhibition in 1868 he commented: "Coral is a thing about which a great deal may be said, both for and against. Carelessly selected, clumsily set, and ignorantly arranged, it may become one of the most vulgar and unsightly of



One man's coral necklace is the remains of another man's *Lobster Thermidor!*

known ornaments. Coral was in fact thus vulgarised a few years since in France and England. People went about bedizened with twisted sticks of seeming red sealing-wax; and coral earrings bore an unpleasant resemblance to fragments of ginger or orris root, or even the domestic forked radish, smeared with red ochre. One has seen a coral necklace that looked for all the world like the debris of a lobster strung together; and more than once an elaborate attempt to produce something like a pattern in coral has only been productive of the impression that the spectator was looking at a bunch of carrots through the small end of an opera-glass. Sham coral was made in cartloads, mainly of vermilion and resin as a varnish, and the public seemed really indifferent as to whether they wore the genuine or the spurious article."

Red and dead

That last comment brings us to imitation coral. In 1809 it was noted that "Coral is often imitated by artificial compositions, some of which are made to resemble it exactly... The colouring ingredients in the artificial coral are cinnabar and minium, which are easily discovered." This raises a scary thought. In the past coral was traditionally used as a children's 'teething toy' — what you might call a pacifier today. Indeed teething toys were widely called 'corals'. Now, cinnabar is a fine red pigment, but is also chemically mercury sulphide — highly poisonous, as is minium ('red lead' or lead tetroxide). Vermillion mentioned in the previous section is another term for cinnabar pigment. I just hope no children were offered teething toys of such imitation coral — although from a purely scientific standpoint it might be a handy way to detect the fake. A destructive test you might say. On the other

hand, real coral had long been used in medicine, although our 1809 observer rather pompously announced that it was "now scarcely ever prescribed by any intelligent practitioner". A later author explained that in the past "They made necklaces of it which were supposed to preserve their newborn infants from contagious diseases; and under many circumstances they believed that preparations of coral were excellent remedies for the sick." It was good to wear too; it supposedly repelled "enchantments, witchcraft, venom, epilepsy, assaults of Satan, thunder, tempest, and other perils".

Tender firmness

However, this is a gemmological publication and as noted in *The New Dominion Monthly* in 1871, we must forget the witchcraft and poisons and remember that "coral, when introduced with taste, forms an elegant addition to precious stones". *The Art Journal* in 1865 was even more enthusiastic: "They [coral ornaments] require to be seen in order to be understood, and consequently to be appreciated. The delicacy and beauty of their tints, the rich gracefulness of their texture, their faculty of forming infinitely varied combinations, the felicity with which they may be grouped with goldsmiths' work in the precious metals, and the sharp, yet tender firmness of their carved and sculptured forms — these all are qualities to be estimated by the eye alone." Of course, coral fell out of fashion again, but only for a time. In 1906 pundits were telling the fashion-conscious that "Coral is once again in favour, and those charming, rosy-pink coral ornaments that have been laid aside for so long are once again brought to light."

Clearly, the reference to lobster debris had been long forgotten!



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