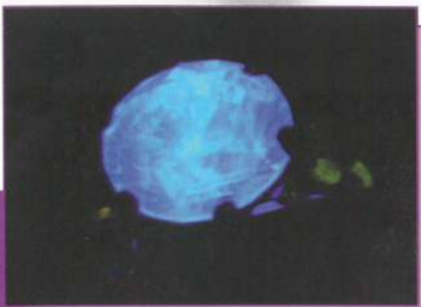


# Gems & Jewellery

June 2005 Vol. 14 No.2



The Gemmological Association of Great Britain & The Society of Jewellery Historians

# MONNICKENDAM DIAMONDS LIMITED

9 Ely Place

London EC1N 6RY

Tel: +44 (0)20 7242 2333

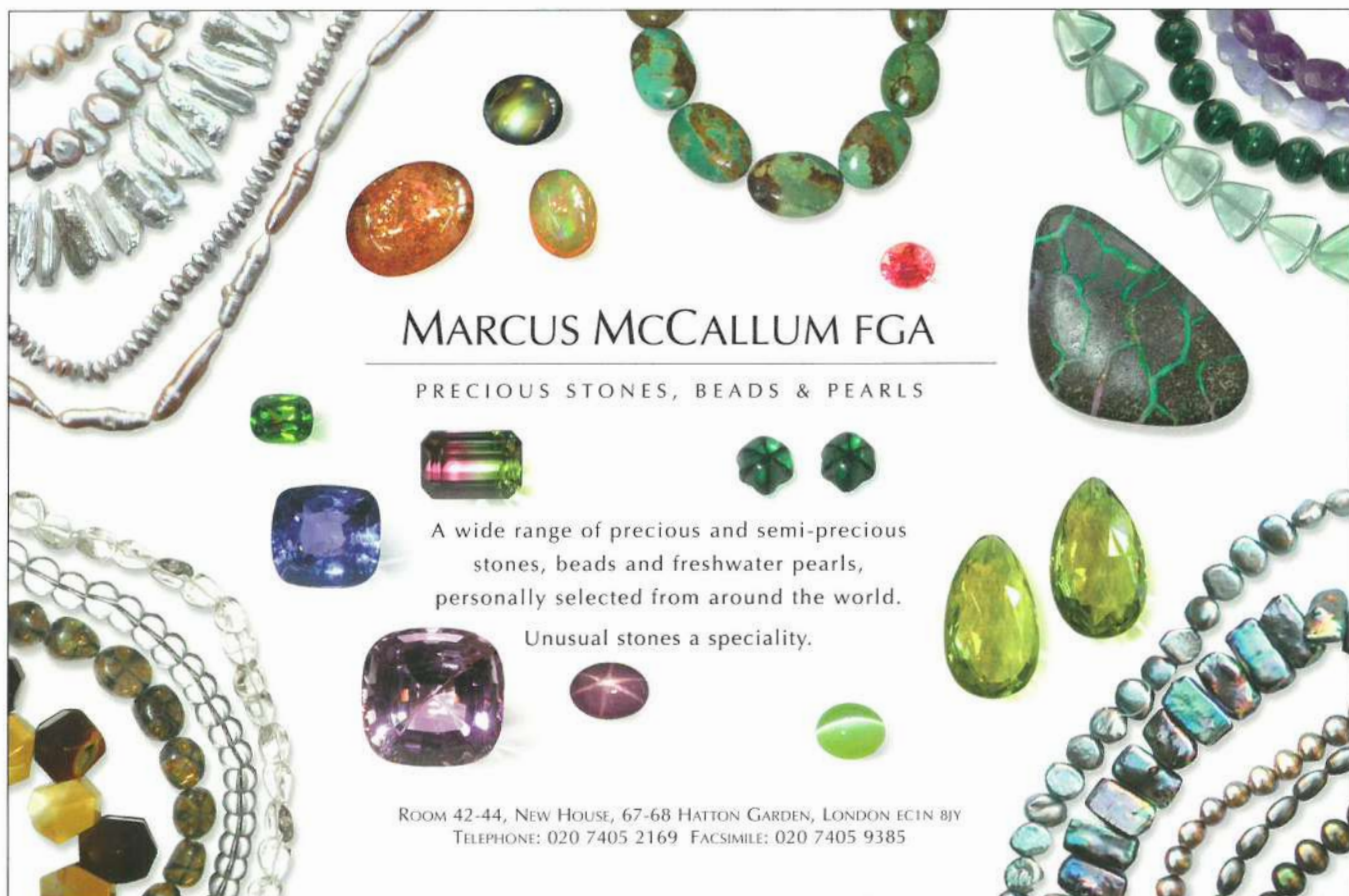
Fax: +44 (0)20 7404 0223

info@monnickendam.co.uk

## Britain's leading diamond cutters and merchants

Never mind the 4 Cs, we work with the 7 Cs.....

<b>Cut:</b>	<b>Round and all fancy-shapes</b>
<b>Colour:</b>	<b>D – G</b>
<b>Clarity:</b>	<b>IF – VS</b>
<b>Carat:</b>	<b>From 400 per carat to 10+ carats</b>
<b>Certificates:</b>	<b>Yes – GIA for 1/2 carat and above</b>
<b>Cost:</b>	<b>Value every time!</b>
<b>Confidence:</b>	<b>The knowledge that you will receive: the <u>exact</u> article you require <u>when</u> you need it</b>



**MARCUS MCCALLUM FGA**

PRECIOUS STONES, BEADS & PEARLS

A wide range of precious and semi-precious stones, beads and freshwater pearls, personally selected from around the world.

Unusual stones a speciality.

ROOM 42-44, NEW HOUSE, 67-68 HATTON GARDEN, LONDON EC1N 8JY  
TELEPHONE: 020 7405 2169 FACSIMILE: 020 7405 9385

# Gem-A Conference 2005 to Honour Professor Dr Edward Gübelin

This year's Gemmological Association Conference will be dedicated to Professor Edward Gübelin, a Fellow and Honorary Life Member of the Association, who died in March this year just one day before his 92<sup>nd</sup> birthday. The one-day Conference will be held on Sunday 30 October 2005 and as befits the memory of this gemmological giant, the theme will be 'The Inside Story: the Inclusions in Gemstones'.

The keynote speaker will be John Koivula of the AGTA Laboratory in Los Angeles (formerly of the GIA laboratory). John, a Fellow and Honorary Life Member of the Gemmological Association and a member of the Advisory Board of Gem-A USA, had been co-authoring with Edward Gübelin the revised edition of the *Photoatlas of Inclusions in Gemstones*. This long-awaited two-volume work is now planned for publication in October and, despite a natural scepticism of publisher's statements regarding timetables, it is our hope that the Conference will also include a book launch.

Inclusions cover the whole gamut of gemmology and we plan a full day of presentations with topics to suit all ranges and levels of gemmological interest and knowledge. There will also be an exhibition of photos of inclusions and a hands-on inclusion workshop. Details will be circulated to members and we have set up a special Conference 2005 webpage at [www.gem-a.info/conference2005](http://www.gem-a.info/conference2005) for the latest information and on-line registration.

John Koivula will also present the education awards at our graduation ceremony at Goldsmiths' Hall, London, on Monday 31 October. All of this year's graduates of our Gemmology Diploma (FGA) and Gem Diamond Diploma (DGA) will be invited to attend our conference this year as guests – an encouragement to the next generation of gemmologists that we believe would have particularly appealed to Professor Gübelin, a strong advocate for the education and the encouragement of the young.

The other great news this month is that the Gemmological Association has finally become a UK Registered Charity. For a long established UK-based association with an international membership, and which provides a wide range of services and educational products, this has been somewhat of a lengthy process. It has included revisions of our Articles of Association (as agreed at an Extraordinary General Meeting held last July) and changes to our accounting procedures. But now, after two years of work, we are UK Registered Charity Number 1109555.

Being a charity will greatly help us to expand and develop the services we can offer to our members. One advantage is that we will be able to claim back tax on UK subscriptions and donations under the Gift Aid scheme. More details in the next *Gems & Jewellery* and at [www.gem-a.info/charity](http://www.gem-a.info/charity).

Jack Ogden  
Chief Executive Officer, Gemmological Association

**PUBLISHED BY**  
The Gemmological Association and Gem Testing  
Laboratory of Great Britain  
27 Greville Street, London EC1N 8TN  
t: +44 (0)20 7404 3334  
f: +44 (0)20 7404 8843  
e: [info@gem-a.info](mailto:info@gem-a.info)  
w: [www.gem-a.info](http://www.gem-a.info)

**AND**  
Society of Jewellery Historians  
Scientific Research

The British Museum, London WC1B 3DG  
e: [jewelleryhistorians@yahoo.co.uk](mailto:jewelleryhistorians@yahoo.co.uk)

**EDITORIAL BOARD**  
Roger Harding, Catherine Johns, Harry Levy,  
Michael O'Donoghue, Jack Ogden, Corinna Pike

**MANAGING EDITOR & ADVERTISING EDITOR**  
Mary Burland

**DESIGN & PRODUCTION**  
Harley Advertising. UK

Copyright 2005

For mediapack and advertising rates contact  
Mary Burland at The Gemmological Association

Any opinions expressed in *Gems & Jewellery* are understood to be the views of the contributors and not necessarily of the publishers

## Gems & Jewellery

(Formerly Gem & Jewellery News)

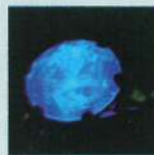
### Contents

Around the Trade	27
Gems and Minerals	28
Notes from the Gem-A Lab	31
Shows and Exhibitions	32
Book Shelf	33
SJH Lecture	35
Gem-A Education	36
Hands-on Gemmology	37
Gem-A Branch News	42
Stamping Around	44
Saleroom News	45
Jewellery	46
Puzzle	46
SJH Events	47
Gem-A Events	48

Cover:



*The Harcourt tiara to be auctioned at Christie's on 15 June. Photo courtesy of Christie's Images Ltd. See Saleroom News, page 45.*



*Diamond fluorescence. See The things that turn up, pages 37 to 41.*



*Silver and gem-set buckle. See At the sign of the falcon, pages 32 to 33.*



*Single crystal CVD diamonds. Photo The Carnegie Institution of Washington. See CVD diamonds - a new growth industry? page 28.*

# NEW from Gem-A Instruments

## C-Master Gauge

A digital scale that calculates the weight of loose and set gemstones, including diamond, ruby, sapphire, emerald and alexandrite.

- **Easy to use**
- **Easy to read**
- **Ideal for valuers**



**Price £250.00**

plus VAT, postage and packing

### Gem-A Instruments

27 Greville Street (Saffron Hill entrance), London EC1N 8TN  
t: +44 (0)20 7404 3334 f: +44 (0)20 7404 8843 e: shop@gem-a.info



The Society of Jewellery Historians was formed in 1977 with the aim of stimulating the growing international interest in jewellery of all ages and cultures by publishing new research and bringing together those seriously interested in the subject, whether in a professional or private capacity. The membership includes archaeologists, museum specialists, collectors, art historians, dealers, gemmologists, practising jewellers and designers, scientists and restorers, all united by their enthusiasm for the subject.

The Society holds eight evening lectures a year at the prestigious apartments of the Society of Antiquaries of London, as well as occasional symposia. The lectures cover all periods from ancient to modern, and a living jeweller is normally included each year. Refreshments are served after lectures, and this provides an opportunity for members to meet.

*Jewellery Studies* is published in colour on an occasional basis, and contains full length articles, book reviews and other information. Members also, of course, receive *Gems & Jewellery* quarterly. The current maximum annual subscription is twenty eight pounds.

The Society of Jewellery Historians  
Scientific Research, The British Museum,  
London WC1B 3DG  
e: jewelleryhistorians@yahoo.co.uk

# All fair play

HARRY LEVY considers current trends at trade fairs and congresses

There has been a proliferation of trade fairs in recent years. For a long time the Basel Watch and Jewellery Fair dominated the calendar. It was held once a year, usually around the beginning of April, and it was a 'must see' for most people involved in the jewellery business.

Historically that fair started as a show-place for the prestigious Swiss watchmakers, but it began to attract jewellers and then stone dealers, and now many other trades needed by the watch and jewellery industry such as packaging, couriers, metal and model makers and others. In the very recent past the watchmakers have been bringing pressure on the organisers to turn it once again into a show-place purely for watches, and jewellers are being moved out of the main Halls into other parts.

The main gemstone fair held in Tucson started as a mineral and gem fair attracting collectors, but has now gone into showing jewellery as well.

Over the years there have always been local fairs, and each country with any significant jewellery industry holds one or more per year. Many of these have become international now and one could spend most of the year going from one show to the next. There are several held in the United States, with Las Vegas becoming very prominent, but one could go to Bangkok, Hong Kong, Shanghai, Milan, Munich and Paris, and still not see all the shows.

With all these events, the local traders want to be able to show only their own goods to the exclusion of others, but want international buyers to attend. The Fair organisers have become so powerful now that they can over-ride local prejudices and have their shows include international pavilions from other countries.

I remember one occasion when, as Chairman of the British Jewellers Association, I visited the Spring Fair in

Birmingham. I was approached by many local suppliers saying that they could see one of their best customers and their largest supplier within a few feet of each other, and what chance would they stand if the two met. Inevitably they do meet now and again, and the result is to cut out the middle men in order to increase profitability or, in many cases, just to stay in business. For many of us who are not the 'cheapest producers' or the 'cheapest retailers' these have become the realities of life. (See my article 'Piggy in the Middle,' in the last issue of *Gems & Jewellery*.)

More and more traders now realise the importance of trade fairs and support them by trying to exhibit in them and find new clients, or go to them to find new suppliers. Fortunately the economic climate is such that more and more people can now afford to buy jewellery, so all sectors of the trade are healthy and it is up to each company to find a niche for itself.

Trade associations are formed by people with similar interests who get together to promote themselves and to protect their place in the market. So in the UK we have the National Association of Goldsmiths (NAG) representing the retailers and the British Jewellers Association (BJA) who represent the manufacturers and their suppliers. There are, of course, associations representing other aspects of the trade, so the stone dealers may get together as may silversmiths.

Such organisations now tend to go international. In the stone trade there is the World Federation of Diamond Bourses (WFDB) which consists of bourses whose members are diamond dealers, the International Coloured Stone Association (ICA) for individual dealers, miners and cutters who deal in coloured stones, and CIBJO which represents all aspects of the trades which has tried to unite national associations into one coherent voice for the trade.

These organisations are there to protect the position of their individual members, and the tendency is to have forums where they can meet and try to solve common problems. These forums have become known as congresses. CIBJO meets every year, the ICA every two years. The WFDB holds a general congress every other year, but holds a meeting for presidents of the individual bourses in the intervening years.

These congresses are held in different countries, at a time to coincide with a local fair whenever possible. Thus the ICA met this year in Bangkok at the time of the Bangkok fair, and CIBJO in Hong Kong just after the Hong Kong Show. The assumption is that many of the delegates will want to attend the fair from a business point of view, so holding a congress at that time saves extra trips and expenses.

The current main theme at all these congresses is to try and maintain consumer confidence in their products.

So now at all these congresses there is much talk of how we can maintain our existing customers and bring in new ones.

Of course, more traditional work is still the mainstay of the congresses. In CIBJO, after many years of hard work, a new format of the *Blue Book* giving the do's and don'ts for coloured stones, has been written and approved in Hong Kong. There is now pressure to re-write and up-date both the *Diamond Book* and the *Pearl Book*. One problem in these projects is that the technology for changing the appearance of stones and for their synthesis is moving so rapidly that no sooner is a book printed than it needs revisions and amendments. So today most national associations are exploring ways in which the CIBJO *Blue Book* can be made available on-line. But even that is a daunting prospect as it now runs to almost 100 pages.

We are living in a world with huge potential for all those in the trade, but also enormous potential for new challenges. Opportunities to face and discuss these together at fairs and congresses are vital. □

# CVD diamonds – a new growth industry?

There has been considerable media coverage in recent months about the development of CVD diamonds and their future impact on the jewellery trade. Most recently there has been the press release that researchers at the Carnegie Institution's Geophysical Laboratory in Washington DC have learnt to produce very large diamonds very quickly using a CVD process.

The Carnegie researchers report that they have produced 10 ct, half-inch thick single-crystal diamonds at rapid growth rates (100 micrometers per hour) using a CVD process. This size is approximately five times that of commercially available diamonds produced by the standard high-pressure/high-temperature (HPHT) method and other CVD techniques. In addition, the team has made colourless single-crystal diamonds, transparent from the ultraviolet to infrared wavelengths with the process.

"High-quality crystals over 3 ct are very difficult to produce using the conventional approach," commented Dr Russell Hemley who leads the diamond effort at Carnegie. "Several groups have begun to grow diamond single crystals by CVD, but large, colourless and flawless ones remain a challenge. Our fabrication is a major breakthrough." The results were reported at the 10th International Conference on New Diamond Science and Technology, Tsukuba, Japan, on 12 May and circulated on Gem-A MailTalk on 17 May.

Most HPHT synthetic diamond is yellow and most CVD diamond is brown, limiting



The variety of single crystal diamonds produced by the Carnegie high growth rate CVD process. Photo: The Carnegie Institution of Washington

## What are CVD diamonds?

Chemical vapour deposition (CVD) diamonds are produced in a reaction chamber by creating a partial vacuum and pumping in hydrogen and methane. This is heated until a plasma is created, when the methane separates into carbon and hydrogen. The carbon rains down on to a seed and the hydrogen is then pumped off.

their optical applications. Colourless diamonds are costly to produce and so far those reported are small, limiting the application of these diamonds as gems. Last year, the Carnegie researchers found that HPHT annealing enhances not only the optical properties of some CVD diamond, but also the hardness. Using new techniques, they have now produced transparent diamond using a CVD method without HPHT annealing. To further increase the size of the crystals, they grew gem-quality diamonds sequentially on the six faces of a substrate diamond plate with the CVD process. By this method, they claim that three-dimensional growth of colourless single-crystal diamond in the inch-range (~300 carat) is achievable.

So what does the future hold? How soon will it be possible to produce gem-quality colourless diamonds economically? □

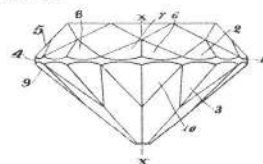


## 100 years of girdle polishing

A hundred years ago this year Ernest Schenck was granted a UK patent for polishing the girdle of a diamond, an invention that, in his words, would "increase the brilliancy of diamonds" while "lessening the liability of chipping and also increase the ease of polishing or repolishing a stone" (UK Patent 24299 of 1905).

Schenck was a Belgian diamond cutter then resident in New Jersey, USA. In fact he had filed a similar patent application in America in 1904, but it was not granted there until 1906 (US No. 809531). The UK and USA patents are worded differently, but cover much the same ground. The various benefits of this new idea are explained in some detail, as we might expect from a practical diamond cutter: "By my invention I can secure a greater brilliancy and avoid, to a great extent, the liability of chipping." In addition the polished girdle made nearby small inclusions more readily apparent. As Schenck notes "By my construction, however, such imperfections are readily discovered."

In the drawing shown here, taken from the UK patent, the polished girdle is marked as 1.



Schenck also patented a method for cutting diamonds, and the machine to do it, in the USA. Here the cutting of an octahedral diamond into two halves was combined with the production of the initial table facets. This cutting technique does not seem to have been patented in Britain. He was also granted a US Patent in 1941 for a type of invisible setting which employed "narrow slots cut into the edge of the diamond or other stone at right angles to the girdle" but did not require the more intrusive grooving along the girdles as in the earlier invisible setting patented in the UK by Chaumet in 1904 and described in the previous issue of *Gems & Jewellery*. □

# Heat-treated demantoids and other Russian garnets

On Friday 15 April Maria Alferova of the Moscow State University gave a talk to Gemmological Association members on 'Green gem garnets from Russia: demantoid, uvarovite and chrome grossular', her specialist research area. Of particular interest to Gemmological Association members was her information about the 'new' (post-1980) source of demantoid garnets and the fact that these are all heat treated.

There are three green garnet species from Russia: demantoid, uvarovite and chrome-grossular. Demantoid garnet has been found in placer deposits near Nizhny Tagil (North Urals, north from Ekaterinburg) and also near Polevskoy (Middle Urals, south from Ekaterinburg) where there is also the original primary deposit.

Bobrovka, near Nizhny Tagil, is the historical source of Russian demantoid. This gem was originally considered to be a type of peridot ('Urals chrysolite'), but was identified as a new variety of green garnet by Nils Nordenschild in 1868. It was later named demantoid on account of its diamond-like lustre. It was popular in the nineteenth century and as late as 1913 130 kg of gem-quality placer demantoid was found here, but exploitation ceased after the First World War and the Russian Revolution. This deposit is worked out, as is the Poldneva 'Chrysolite river' placer source near Polevskoy.

The primary demantoid source near Polevskoy was discovered in 1980 and is now worked using open-cast mining. This is currently the only source for gem demantoid in Russia.

Maria explained that demantoid is a chromium-andradite garnet ( $\text{Ca}_3\text{Fe}_2(\text{SiO}_4)_3$ ). Mineralogically speaking, demantoid is formed where basic rocks cross ultrabasic ones. The basic rocks are the source of calcium, iron and silicon while the ultrabasic rocks are enriched in chromium. These demantoids are of poor colour and semi-opaque when mined, but are improved in colour and clarity by heat treating in reducing conditions to change the valence state of the iron. The exact process is jealously guarded by the mining company, but the nature of the change is being investigated. The heat treating used to be identifiable by a slight burning of the horsetail inclusions, but the evidence suggests that the process has now been adapted (perhaps using lower temperatures) and little if any such burning is now apparent. Maria also explained the nature of these horsetail inclusions: demantoid forms split grains with co-grown clinochrysolite needles which can dissolve to form hollow tubes –



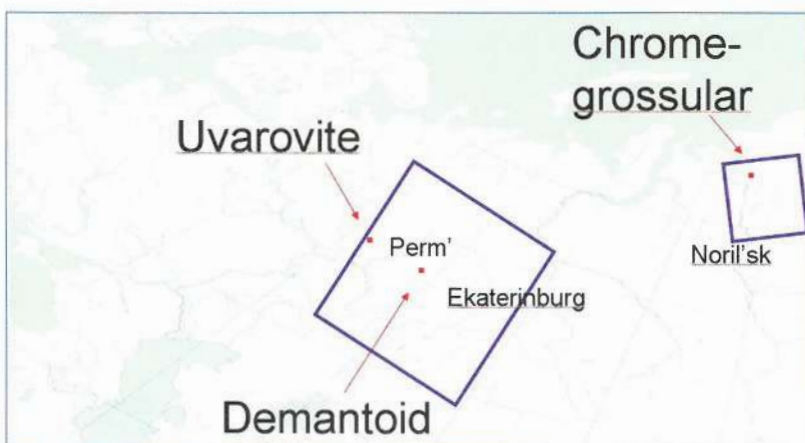
*Heat-treated demantoid garnet from the Karkudinskoye primary deposit*

the horsetail inclusions. Other inclusions in these demantoids include diopside and magnetite.

The new demantoid garnets can fetch between \$50 and \$1400 per carat, depending on colour and quality, few cut stones weighing above 2 carats. The dispersion and brilliance of demantoid is similar to diamond and thus the commonest demantoid cut is the round brilliant. However, some stones are cut in older styles to pass them off as old and thus increase their value.

Maria also described uvarovite garnets from the Perm area and the chrome grossular garnets from north of Noril'sk. She explained that the uvarovite was seldom suitable for use as a cut stone, but small sparkling mats of uncut crystal aggregates on a matrix could be set in jewellery and larger pieces make superb collection material. She noted that although the Russian chrome grossular garnets were sometimes known as 'Siberian tsavorite,' their colour and quality could be compared only with the poorest gem tsavorite.

She also noted that the uvarovite and chrome-grossular garnets were anisotropic and show strong optical zoning in thin sections. This is due to growth asymmetry as a result of kinetic ordering of aluminium and chromium in their structure.



*Location of deposits of demantoid, uvarovite and chrome grossular garnets in the Urals*

At a reception after her lecture, Maria presented the Association with a selection of Russian chrome grossular garnet crystals for study and teaching.

Although we only had last minute

confirmation that Maria Alferova would be passing through London en route to the Gemmological Association's Scottish Branch Conference in Perth, there was a very good audience of 50 to hear her lecture. This is a tribute not just to the

organisational skills of the Gem-A staff, but also to the enormous benefits of email for rapid communication. The lecture was first announced via Gem-A MailTalk, the Gemmological Association's email link for members. □

## Glass-filled rubies

Some members have asked for information about the glass-filled rubies that have recently appeared on the market. The rubies mainly derive from Madagascar and are 'treated' in Thailand.

'Breaking News' information of instant importance to those in the gem field is now disseminated to Gemmological Association members via the Gem-A MailTalk email-network (see note below).

What follows was sent out to MailTalk subscribers on the 11 January this year:

A large ruby recently passed through the Gem-A Gem Testing Laboratory that was quickly recognised as a lead glass filled ruby – one of a breed now entering the market in increasing numbers.

This type of enhancement was spotted by the Research Laboratory of the Gemmological Association of All Japan (GAAJ) early in 2004. The stones appear to be treated in a similar way to glass-filled diamonds and can exhibit the same type of 'flash' effect. The glass filling in the fissures is a lead glass and this can be detected by XRF and other analytical techniques – basic contact X-ray radiography on the example we saw revealed an amazing network of filled fissures, lead glass, of course, being opaque to X-rays. The lead-based glass melts at a low-enough temperature to prevent any changes to the natural 'silk' in the stones. The source of at least some of the treated stones is said to be Africa.

Stone dealers and members of the jewellery trade are advised to be on the lookout for these stones – some are quite large. The Gem-A Gem Testing Laboratory can, of course, provide a quick and reasonable testing service for all those in the industry.

Following the Tucson Show, when we had the opportunity to examine a large number of such rubies and discuss them with colleagues from other international laboratories, we circulated the additional information that the filler appeared to be basically lead oxide (with a touch of bismuth) and probably much the same as used in the 'clarity enhanced' diamonds that began to be produced a couple of decades ago. The lead-rich composition of the filler means that its refractive index is close enough to that of ruby to be almost invisible.

The visual and economic effects of the filling are remarkable. Pale and flawed little stones 'that you would hardly

gravel your drive with' and which could be bought for \$10 a carat or less could be impregnated with the lead glass and sold to unwary buyers for many hundreds of dollars per carat. There was also the story (that we have not been able to verify) that an important 'estate' ring was rejected from the Miami antique jewellery show when the large ruby set in it proved to be in-filled.

Most of these in-filled rubies are easy to spot, especially after you've seen your first example. However, the use of the same treatment on finer, less fissured rubies – and on some other gems – might be trickier to detect. We have not so far seen examples through the Gem Lab in London, but in his presentation at the recent Conference of the Scottish Branch of the Gemmological Association, Shane McClure of the GIA's Gem Trade Lab in Carlsbad, California, noted that they had now spotted the use of a similar lead glass as a fissure and surface cavity filler in rubies of much higher quality. □

### Information and photos on line on glass-filled rubies

The original March 2004 alert from the Research Laboratory, Gemmological Association of All Japan (GAAJ):

[http://www.gaaj-zenhokyo.co.jp/researchroom/kanbetu/2004/gaaj\\_alert-040315en.html](http://www.gaaj-zenhokyo.co.jp/researchroom/kanbetu/2004/gaaj_alert-040315en.html)

American Gem Trade Association (AGTA) Press Release (June 2004):

<http://www.agta.org/consumer/news/20050106glassfilledruby.htm>

The GAAJ update (December 2004): [http://www.gaaj-](http://www.gaaj-zenhokyo.co.jp/researchroom/kanbetu/2005/kan_2005_01en.html)

[zenhokyo.co.jp/researchroom/kanbetu/2005/kan\\_2005\\_01en.html](http://www.gaaj-zenhokyo.co.jp/researchroom/kanbetu/2005/kan_2005_01en.html)

The Gem Testing Laboratory of the Asian Institute of Gemological Sciences (AIGS) updated report of 16 February 2005:

<http://www.aigsthailand.com/Filearticle/55.pdf>

The links provided above include very fine photographs of the in-filled rubies and their internal characteristics.

MailTalk, introduced in late 2004 (see *Gem & Jewellery News*, December 2004, Vol. 13, No. 4, p.73), is open to all Gemmological Association members, but you have to opt in. To join, just send an email to [jack.ogden@gem-a.info](mailto:jack.ogden@gem-a.info).



## Some recent jewellery fakes

Two pieces of jewellery that recently passed through the laboratory illustrate both the recently extended range of the Gem Lab's work and the skills of recent forgers.

The first object was a gold and pink topaz necklet in the Georgian style. The basic form is indeed that of the first few decades of the nineteenth century with the filigree work then popular in Europe, called Canatille work because it resembled the embroidered brocades on military uniforms. Contemporary descriptions of the techniques used exist, such as by P. Boué in his *Traité d'Orfèvrerie, Bijouterie et Joaillerie* (Paris, 1832). A detail of the pendant from the necklet and part of the interwoven gold band are shown (1) (out of respect to the owners of objects that pass through the Lab, we only illustrate details).

Although at first glance the necklet might appear old, closer examination soon reveals worrying aspects. Apart from the modern approach to assembly, the surface, gold composition and the gem cutting all point to a recent origin.

This necklet is not unique; there appears to have been a spate of such Georgian fakes and imitations a few years ago. Some were sold as genuine, some as copies. They are still to be seen in some shop windows and crop up on some internet sites. It is unclear where

they were being produced – any information on this would be useful.

The rather sparse description of the 'wrong' aspects of the necklet might be frustrating to some readers, but it is a lab policy for a very good reason. Too detailed an explanation of where forgers get it wrong simply ensures that the next generation of fakes get it better. Nowhere is this better illustrated than with the wave of fake goldwork in Greek and Scythian style that has appeared in recent years. It can hardly be coincidence that the fakes have appeared within a few years of the first Russian language description of ancient Greek jewellery technology – the Russian translation of the exhibition catalogue *Greek Gold: Jewellery of the Classical World* (D. Williams and J. Ogden, London 1994).

With these objects the style is usually suspicious – certainly once you have seen one or two of the pieces – but from a constructional point of view they are head and shoulders above many other fakes of ancient gold made over the last century. The detail of one such fake that recently was brought to the Lab for examination is shown here (2). The forgers have copied the ancient methods of plain and

decorative wire manufacture extremely well and, as the detail of another example recently seen shows, there is no lack of ingenuity in giving the appearance of great age – an attachment perforation with adhering 'rust' (3).

There are various tell-tale 'hallmarks' of these Russian fakes, both compositional and constructional, but we do have to congratulate the Russian faker on his good imitation of ancient spiral beaded wire; this has seldom been competently copied. Those that have achieved this include one of the members of Alessandro Castellani's team – probably Giacinto Mellilo working in Naples in the 1860s to '70s – and a consummate faker working in Greece just before and/or after the Second World War. To the latter I believe we might attribute a masterly copy of a Greek gold and garnet diadem in the Benaki Museum, Athens, that recently fetched several hundred thousand euros in a European auction.

Needless to say, any comments regarding authenticity or origins of gemstones or jewellery stated here or in Gem Lab reports are opinions, and opinions may vary between experts. □

J.O.



Fake goldwork in Greek style: 2 illustrates a good copy of ancient wire work and 3 an attachment perforation and 'rust' to give the appearance of great age



Fake Georgian style topaz set necklet

# At the sign of the falcon

## H.G. Murphy: art deco silversmith and jeweller



A report by DAVID BEASLEY on the exhibition of the work by this fine craftsman

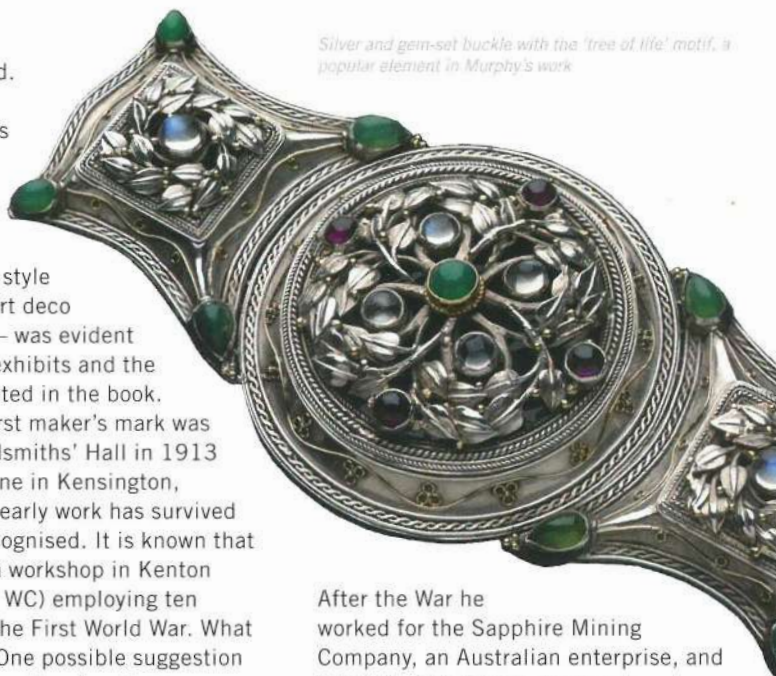
An exhibition of the silver and jewellery of H.G. Murphy (1884-1939) was shown in the foyer at Goldsmiths' Hall from 4 to 30 April 2005 to coincide with the publication of a monograph co-written by Paul Atterbury and John Benjamin and published by the Antique Collectors' Club (see review on p.33).

might need to be reconsidered.

The range of his work – from simple silver and niello plaques to complex Celtic style brooches and art deco diamond clips – was evident from both the exhibits and the designs illustrated in the book. Although his first maker's mark was entered at Goldsmiths' Hall in 1913 from Duke's Lane in Kensington, relatively little early work has survived or has been recognised. It is known that he had set up a workshop in Kenton Street (London WC) employing ten people before the First World War. What was he doing? One possible suggestion is that he was working for other designers such as Wilson.

During the First World War he served in the Royal Naval Air Service and had reached the rank of a Second Lieutenant when he was demobbed.

Silver and gem-set buckle with the 'tree of life' motif, a popular element in Murphy's work



After the War he worked for the Sapphire Mining Company, an Australian enterprise, and regularly travelled to Europe on business. In 1924 he was involved with the Royal Dolls' House project for Queen Mary, making miniature versions of the Crown Jewels. A beautiful miniature set of jewels was displayed in the exhibition.



'Flower' brooch with characteristic bands of enamel

Some forty SJH members and their guests enjoyed an evening private view on Monday 11 April. After viewing the exhibits downstairs they listened to a stimulating 30-minute talk by John Benjamin on Murphy's jewellery. Based on an extensive family archive of drawings and correspondence he argued, persuasively, that there was a necessity to re-assess Murphy's jewellery. Questions were posed about the precise nature of his relationship with Henry Wilson to whom he was apprenticed in 1899. There was great mutual respect between the two men, and documentary evidence suggested that Wilson relied on Murphy's abilities and skills as a craftsman. John Benjamin identified the chequerboard enamel pattern as a distinct characteristic of Murphy's work and proposed that the attribution of jewellery of this type to Henry Wilson



A range of silver and niello brooches and a stick pin



Portrait of H.G. Murphy

He seemed to have re-entered the mainstream when he acquired a studio/workshop and retail premises in Weymouth Street in 1929 (moving to Marylebone High Street in 1935). The business was named 'The Falcon Studio' and the falcon emblem was used on the shop sign and was registered as part of the hallmark used by Murphy and the Falcon Studio. In 1932 he became the Head of Silversmithing and Jewellery at the Central School of Arts and Crafts.

Such was his success and restless energy that when he applied for the position of Principal two years later he was appointed over and above some 50 applicants. The great expectations held for him were dashed by his early death in 1939 and his name was rarely mentioned in jewellery circles after the Second World War.

This book and exhibition have offered an opportunity to re-assess his work and the authors freely admit that they hope this is but the start of the restoration of his proper place in the history of twentieth-century silver and jewellery. □

The Society is most grateful to the Goldsmiths' Company, Paul Dyson, the Exhibition Director, and more especially John Benjamin, for such an interesting and revelatory evening.

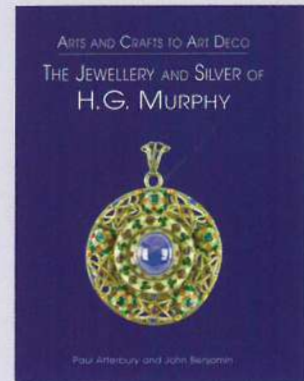
## Arts and Crafts to Art Deco The Jewellery and Silver of H.G. Murphy

Nigel Israel reviews the book published to coincide with the exhibition

*Arts and Crafts to Art Deco: The Jewellery and Silver of H.G. Murphy* by Paul Atterbury and John Benjamin. Antique Collectors' Club, Woodbridge 2005. 28 x 22 cm, pp 183 inc. index, profusely illustrated, hardback, £35.00.

The preceding report describing the SJH evening at the H.G. Murphy exhibition at Goldsmiths' Hall says much about this amazing man. His history is greatly expanded in this excellent and beautifully illustrated book. An extraordinary range of both jewellery and silver is shown together with many illustrations of original designs. The range of styles is amazing as Murphy took inspiration from all ages and then added his own touches. In some cases he merged different styles, such as in chinoiserie earrings with a touch of Ancient Egypt. Much of his work has vibrant enamels, superbly executed as indeed was all his considerable output. There were many commissions, including royal (such as the miniature regalia for Queen Mary's Doll and at least one tiara), civic and corporate, some of which are shown in this book.

In 1928 Murphy's business had expanded so much that he took large retail premises in Weymouth Street, which included extensive workshops where he employed a considerable range of craftsmen. This combination of retail and manufacturing separated Murphy from the vast majority of his contemporary artist-craftsmen, and put him on a par with



long-established names such as Jensen and Tiffany. His output must have been very considerable in this period, which makes it all the more surprising that he is not now well known. It seems that very little of his jewellery is marked, but most of the silver is, which, of course, makes it that much easier to identify.

This highly recommended book is a superb tribute and record of a man who was a giant in the in the early twentieth-century world of jewellery and silver until his untimely death in 1939, but who (unlike his friends, admirers and contemporaries such as Henry Wilson and William Morris) had until now been almost totally forgotten. Paul Atterbury and John Benjamin are to be greatly congratulated on rescuing Murphy from obscurity, and through their diligent research re-attributing to him many mis-catalogued pieces including several previously thought to be by Wilson. □

Nigel Israel

*Arts and Crafts to Art Deco: The Jewellery and Silver of H.G. Murphy* is available from Gem-A Instruments, 27 Greville Street, London EC1N 8TN. t: +44 (0)20 7404 3334 f: +44 (0)20 7404 8843 e: shop@gem-a.info

# The Diamond Trading Company



## DIAMOND VALUER

### Attractive benefits package - based in London

For more than a century, the De Beers name has been synonymous with diamonds. The Company is a world leader in diamond exploration, mining, recovery, valuation and marketing. Its sales and marketing arm, the Diamond Trading Company (DTC) is a leading supplier of rough diamonds and has conducted a renowned diamond advertising and promotion campaign for over half a century. As an 'employer of choice' our mission is clear: to attract the best in the world with unique skills and talent.

The DTC is looking for individuals who have a passion for diamonds, and who, through our extensive training programme will reach the highest standards of diamond sorting and valuation. Over the coming years we are aiming to develop the Rough Diamond Division of the DTC as a global Centre of Excellence - we will therefore need to be at the forefront of innovation and developing new streams of activities which benefit our clients.

Diamond valuers are responsible for the sorting and valuation of rough diamonds from both De Beers mines and those of our Producer partners into different categories according to size, colour, model and quality. Valuers will also be involved in the weighing of diamonds and preparation for sale.

Significant training will be provided, but certification in geology or gemmology would be an advantage, as would knowledge of manufacturing or polishing techniques. Applicants should have achieved a good educational standard - minimum of two A levels or equivalent, have good analytical skills and basic computer competence.

Ideally applicants will be able to demonstrate previous work experience, the flexibility to work within an international team undertaking a range of tasks, whilst at the same time having the capacity for attention to detail. Good eyesight is essential.

We offer an excellent employment package, which includes a contributory pension scheme, life assurance, discretionary bonus scheme, staff restaurant, private healthcare and 23 days holiday per year.

Please apply by way of CV and covering letter, outlining why you are ideal for this role, to:-

Sharon Coodien, HR Services  
Diamond Trading Company Limited  
17 Charterhouse Street  
London, EC1N 6RA or email:  
sharon.coodien@dtc.com

Closing date is 15 July 2005



## NEW from Gem-A

### CZ Models of Diamond Shapes

Ideal for education and as a selling aid



#### Collection of ten modern cuts\*

- Round brilliant
- Marquise
- Emerald cut
- Heart-shape
- Princess cut
- Pear shape
- Square step cut
- Radiant cut
- Tapered baguette
- Oval cut

**PLUS:**  
Additional lower quality cut CZ for comparison

**Price £16.00**

plus VAT, postage and packing

\* approx. size range up to 7 mm

#### Gem-A Instruments

27 Greville Street (Saffron Hill entrance), London EC1N 8TN  
t: +44 (0)20 7404 3334 f: +44 (0)20 7404 8843 e: shop@gem-a.info

## Gaskell Quartz Ltd

38 Guildford Road, LONDON, SW8 2BU

Tel. 020 7274 8007 Fax 020 7274 8101

Email info@gaskellq.com

## LAPIDARY

High quality hand and machine work on semi-precious and ornamental hardstones

Object size up to approx. 50cm.

Well equipped London workshop

CARVING  
ENGRAVING  
TURNING  
PROFILING  
DRILLING  
REPAIR WORK  
INTAGLIO

Stock Materials  
ROCK-CRYSTAL  
AGATES  
PORPHYRIES  
&c.



# Changing views of the Bonus Eventus Plaque

IAN FREESTONE'S lecture to the SJH on 26 April gave the audience many new insights from the scientific viewpoint into the manufacture and technology of glass and enamel in the Roman and Medieval world. In the following summary, Ian focuses on a single case-study in his talk, which is a striking example of the crucial role that science now plays in our understanding of the past. He illustrates the vital importance of scientific research and analysis in advancing our knowledge.

Hugh Tait maintained a very strong interest in fakes and forgeries, and one such object was the Bonus Eventus Plaque, which featured in the introduction of his book, *5000 Years of Glass*. Here I present a summary of a recently published study of the plaque by Veronica Tatton-Brown and myself, in memory of Hugh, who did so much to encourage the study of this object.

The plaque is of opaque blue glass with yellowish-white flecks and shows in relief the Roman god Bonus Eventus who presided over agriculture, giving success and good yields for the farmer. It was part of the collection of Charles Townley (1737-1805) which was purchased by the British Museum after his death.

A number of nineteenth-century authors identify the material of the plaque as lapis lazuli. For example, Taylor Combe in 1818 regarded the plaque as "...by far the best, as well as the largest piece of sculpture on lapis lazuli, with which we are acquainted."

The plaque was first referred to as glass in 1883. A natural conclusion might have been that this glass plaque, posing as lapis lazuli, was a fake, and indeed it was first inferred to be a fake by Hauser in 1889. However, it was included in the exhibition *Masterpieces of Glass* (Harden *et al.*, 1968) as a genuine Roman glass object of the first century AD. As late as 1991 in *Five Thousand Years of Glass*, Hugh Tait considered the results of recent scientific test to be

"inconclusive.... it is too early to cast any doubt on its genuineness," finally concluding that it was a "clever pastiche or fake" in 1995.

A small sample of the plaque revealed features completely at odds with an origin in the Roman period. In particular it is a potash-silica glass (Roman glass is invariably soda-lime-silica) and it contains 6% arsenic, unheard of in Roman glass.

If not Roman, then when was the plaque made? Our work provides a number of clues. First, the bulk composition appears to correspond to that of *smalt*, a cobalt-rich glass made in Saxony and widely exported from the sixteenth century as a pigment for use in painting, in glass and in ceramic glazes.

Furthermore, the plaque contains two other components, *marzacatto*, a frit and tin oxide. Both of these were used in the Italian maiolica industry to opacify glazes and appear to have been added to the glass of the plaque for the same purpose. Taken together, the raw materials of the plaque strongly suggest that it was the product of an Italian pottery workshop, and in this case, it may have been made in Italy shortly before it was acquired in the eighteenth century.

The relief appears to have been initially moulded, but was enhanced by cutting, engraving and polishing. The idea that it was produced in association with a pottery workshop, rather than a specialist glassmaker, is supported by the poor quality of its moulding: the back surface is distorted and wrinkled in places, with an appearance rather like the skin on hot milk which has been chilled. A large area in the centre has spalled off and there are deep shrinkage cracks. On the front four small patches of bright blue glass have been inserted, presumably where the plaque was damaged during casting.



The Bonus Eventus Plaque (BM GR 1814.7-4.242 (1958.2-11.1)). 180 x 180 x 9 mm. © The British Museum

Several hair-line cracks are visible. The white patches are confined to the front surface and appear to be sand incorporated into the surface when the plaque was cast. The craftsman who made the plaque does not appear to have been skilled in the art of casting glass.

As the understanding of the material of the plaque has evolved, it has been evaluated as "by far the best, as well as the largest piece of sculpture on lapis lazuli, with which we are acquainted," as a "masterpiece of glass" and as "a clever pastiche or fake." However, the results of the present examination demand that a further issue be considered. Were the features that gave the object credibility as a piece of lapis lazuli, such as the repairs, cracks and pale flecks, originally intended by the maker? Does it represent a clever or outstanding example of a faker's work, or were some of the most convincing features the result of lucky accident, rather than design? The plaque is a fine example of the way in which our perceptions of an object may change with our understanding of the way in which it was made. □

# Gemmology Practical Certificate

Recognition for top-level practical gem skills

A Gemmology Practical Certificate will now be issued to all students who pass the practical section of the Gemmological Association's prestigious Diploma exam. This new proof of high-level practical gemmological skills will be backdated to make the certificate available to all who have passed the diploma-level practical exam since it was revised in January 2002.

Students who have qualified in the Gem-A Foundation Certificate Examination in Gemmology now have two options:

- to sit only the Practical section of the Diploma exam to gain the Practical Certificate, with the option to take the Theory section at a later date to gain the full Diploma, or
- to sit both the Theory and Practical sections of the Gemmology Diploma exam at the same time to gain the Diploma. (It is necessary to qualify in both the Theory and Practical sections at the same time to be eligible for a Merit or Distinction.)

"It is important to recognise those that meet the demanding standards of our practical examination," said Dr Jack Ogden, Gem-A's Chief Executive. "The full Diploma and our FGA designation will remain the epitome of top-level gemmological qualifications worldwide, but now all those interested in gemmology, whether professionally or as amateurs, will be better able to pace their learning and achievements to match their

needs and life styles."

Ian Mercer, Gem-A's Director of Education, comments, "Gem-A's emphasis on practical observational awareness is increased still further with this new Certificate. Our theory and practical gemmology exams are both designed to maximize people's self-reliance in observational and gem testing skills. We are helping them to prepare for the realities of modern hands-on gem identification."

The new Gemmology Practical Certificate is part of a series of educational initiatives by Gem-A to build on its long-established educational excellence and promote a wider understanding and awareness of gems and gemmology worldwide. □

## Short courses and workshops

### BEAD STRINGING WORKSHOPS

8 September, 19 October or 15 November

Learn the techniques needed for successful bead stringing.

*Gem-A members £146.88  
(non-members £158.63)*

### DIAMOND BUYING GUIDE

21 September

How to assess a diamond based on the '4 C's'

*Gem-A members £122.20  
(non-members £135.13)*

### DIAMOND?

22 September

Learn about the diamond treatments, synthetics and simulants on the market today.

*Gem-A members £135.13  
(non-members £145.70)*

### AN INTRODUCTION TO GEMMOLOGY

27 September

A hands-on day on many of the varieties of cut stones and crystals, and gem testing equipment.

*Gem-A members £122.20  
(non-members £135.13)*

### ALL ABOUT PEARLS

4 October

From the origins of natural and cultured pearls, to the treatments and simulants in the trade today.

*Gem-A members £138.80  
(non-members £154.22)*

### THREE-DAY ROUGH DIAMOND ASSESSMENT COURSE

26 to 28 October

An intensive assessment course covering key areas such as mining and production, value factors of rough diamonds, rough to polished diamond yields and simulants.

*£675.00  
(including notes and a diamond kit)*

### SIX-DAY DIAMOND PRACTICAL COURSES

6 to 13 July (exam 14 July) and 2 to 9 November (exam 10 November) (excluding weekends)

An intensive diamond grading course plus certificate exam, with an emphasis on the use of the 10x lens. *£880.00*

### GEM TRAITS

22 November

An opportunity to handle a wide selection of gemstones whilst learning about their beauty, rarity, durability, lore and history.

*Gem-A members £122.20  
(non-members £135.13)*

### PHOTOGRAPHING JEWELLERY

25 November

Guidance on this specialised area of photography.

*Gem-A members £164.50  
(non-members £175.07)*

Courses are held at the Gem-A headquarters at 27 Greville Street, London EC1N 8TN.  
For further details and a booking form visit [www.gem-a.info](http://www.gem-a.info) or call Claire on 020 7404 3334.  
*All prices inclusive of VAT*

# The things that turn up

GRENVILLE MILLINGTON gets some interesting test results from glass stones set in a bracelet, and is amazed at the length of time a diamond phosphoresces

## An interesting glass-set bracelet

One item in a collection submitted for general valuation was a silver bracelet (only stamped 925) set with six rich blue cabochon stones (1). At first glance I expected the stones to be synthetic blue spinel, but one look inside them with a 10x lens was enough to indicate that they were 'glass'. The air bubbles inside, however, were of a number and nature that was interesting and recourse was made to the microscope.

It took only a second or two to decide the identity of the blue stones after viewing them through a 10x lens. The shape and character of the numerous air bubbles throughout meant glass, and the richness of the colour was of a type that is called 'Bristol Blue' glass; it was used as liners to silver salt cellars and a well-known brand of sherry has used it for its bottles. The pieces of glass were oval but not regular in size or shape, varying between about 15 x 12 mm to 17 x 14 mm.

Modern glass tends to show only a few isolated bubbles, but such was the

number in these pieces that the eye was overwhelmed with them. One piece contained so many bubbles that when viewed with the rather special lighting of the dark-field microscope they resembled 'the sky at night.' The other pieces, though, showed strange cloud formations, which on viewing at higher magnification (up to 80x) showed ranges of extremely small bubbles (2-5). This fact, coupled with the irregular shapes of the pieces, led me to conclude that they were hand made. The spot reading of two of the stones on the refractometer indicated an RI of 1.50.

When the bracelet was viewed with the Chelsea Colour Filter using strong incandescent light, a surprising difference was seen in the appearance of the stones. Four showed exactly what was expected, namely a strong, full red. But one appeared pale yellow and the last appeared green. When transferred to the ultraviolet lamps, the four showed no fluorescence, with the other two displaying a dull, chalky yellowish-green fluorescence. The results were the same under long- and short-wave. The spectroscope provided the answer as to why there were different colours under the Chelsea Filter. The pieces that showed red under the filter had the expected cobalt spectrum of three broad bands in

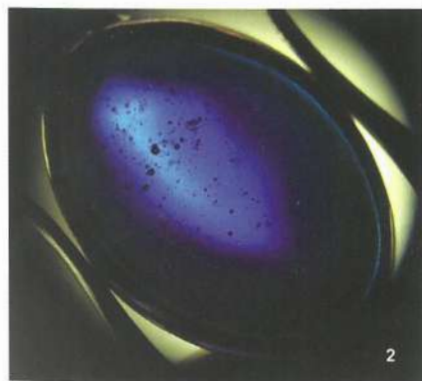
*GRENVILLE MILLINGTON is a Director of Hinton Millington Ltd, jewellery manufacturers, and has provided a gem testing service in the Birmingham Jewellery Quarter for many years.*

*Silver bracelet set with rich blue oval cabochons of glass*

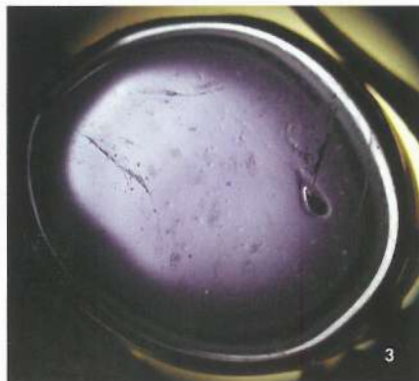


the red, orange and green parts of the spectrum. The piece that showed green under the filter had an absorption band covering the whole of the red part of the spectrum. The piece that showed yellow under the filter had the normal red band, but the remaining part of the red area of the spectrum was partially absorbed (6).

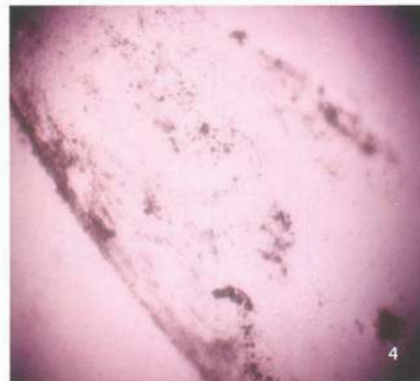
Although there was no problem in identifying the blue cabochons as glass,



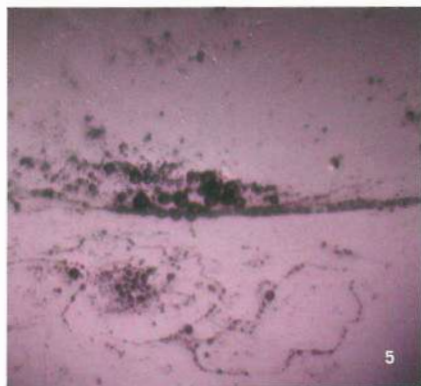
*One cabochon with air bubbles in profusion throughout the glass. Magnification 5x*



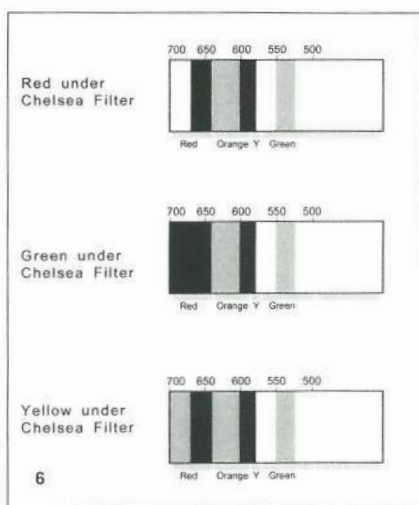
*Some large bubbles are apparent in this cabochon; there are also feathers or clouds. Magnification 5x*



*An area of the cabochon shown in 3, showing the feather to be made up of smaller and smaller bubbles. Magnification 50x*



A feather or cloud and meandering trails of bubbles. Magnification 80x



The changes in the red part of the absorption spectra explain the three different reactions under the Chelsea Filter

the included air bubbles proved to be of an interesting and in some cases highly complex nature. The different response of the cabochons under the Chelsea Filter proved to be a textbook illustration of how the absorption bands of the spectrum affect residual colour. On looking carefully at the stones afterwards, a slight difference in the colours of the two pieces that failed to show red under the filter compared to those that did could be discerned. However, if you compare 2 and 3, it is apparent that the camera has recorded a difference in colour, although the difference shown is greatly exaggerated, compared with our perception. □

## For how long do you think a diamond might phosphoresce?

(Clue: do not think in terms of minutes, but hours!)

A 'Premier' type highly fluorescent diamond showed extremely long phosphorescence (afterglow) and an attempt was made to see for how long the effect would last. The same stone also phosphoresced after exposure to ordinary light. A comparison with other phosphorescent diamonds is given.

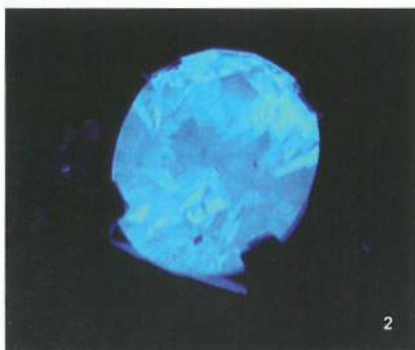


Ring with oval diamond of about 2.10 ct; the diamond had characteristics of fluorescence akin to stones from the Premier mine

A ring containing an oval brilliant-cut diamond weighing approximately 2.10 ct with fancy diamond-set shoulders (1) was sent to me to replace a damaged shoulder diamond. That was no problem, but I noticed that the main diamond was strongly fluorescent. If you examine diamonds in natural daylight then the ones that have strong blue fluorescence are quite often noticeable without having recourse to an ultraviolet lamp. They have a typical bluish haze which, if the body colour of the diamond is somewhat yellowish, will 'whiten' the diamond's apparent colour. In extreme cases, the perceived colour in daylight can be three or four grades better than the actual body colour when it is examined under a standard diamond grading light. Where the body colour is distinctly yellow and the fluorescence is strong blue (features shown by this stone), the diamond is often referred to as a 'Premier' stone, after diamonds showing this characteristic were found at the Premier diamond mine in South Africa in the early 1900s. In the trade, they are usually described as having a 'petrol'

or 'oily' look. I judged the colour of the stone to match closest to a K diamond master stone, viewed from the side using a fluorescent light with a colour temperature of 6000K.

But back to the ring. Having discerned in daylight that it was strongly fluorescent, I couldn't resist placing the ring under the long-wave ultraviolet (LWUV) lamp to see the full fluorescence. It was just like switching on a lamp inside the stone; a beautiful bright, light blue (2). I was on my way out of the testing room when I thought, "Why not look at the phosphorescence?" So, back in to repeat the procedure, close the doors to produce total darkness, place the diamond under the LW lamp for a few seconds, then switch off the lamp. The phosphorescence was an unusually bright, greenish-yellow glow (3) which



The 2.10 ct diamond (2) fluorescing under LWUV and (3) showing greenish-yellow phosphorescence



did not die off after a few seconds, but remained. I must have looked at it for about 30 seconds, and then came out of the testing room to carry on with other work.

## Other stones

I was looking through two parcels of diamonds, containing stones weighing 0.20 ct and 0.25 ct. Looking in daylight, I noticed one fluorescent stone in each parcel. These were much whiter stones than the large single stone I had looked at earlier (I graded them later as G and H), but showing the blue haze. Other stones in the parcels, which I later checked, would show quite strong fluorescence, but not strong enough to be apparent in daylight.

I thought about the phosphorescence seen earlier that day in the ring and determined to see just how long it would phosphoresce, and use these other two stones for comparison. In general, afterglow lasts for a few seconds, but I had already observed it for 30 seconds or so previously. Could it last, say, 5 or 10 minutes?

The diamond in the ring was an oval brilliant cut, 9.6 x 7.4 x 4.7 mm, and I estimated the weight at approximately 2.10 ct. The two loose stones from the parcels were both round brilliant cuts of 0.20 ct and 0.24 ct.

I started at exactly 2:15 p.m., exposing the ring and the two comparison stones to LWUV for 15 seconds, then switching off the lamp. I would have to count the seconds as best I could. All three showed a strong whitish-yellow afterglow, the 0.20 ct stone being slightly more orange. After seven or eight seconds the 0.20 ct diamond seemed to switch itself off, and was not visible. The other two stayed easily visible. In the meantime, I was standing in complete darkness looking at the spot where the three test stones were. After about three minutes of counting seconds, I had resorted to looking at my watch with luminous hands (but not on the seconds hand!). When about ten minutes had passed, I gradually became aware that the 0.20 ct diamond was now visible again. Obviously it had not stopped glowing, but had reduced to a level that I was not able to see at that time. Now that my eyes were completely

adapted to the darkness I was able to see this lower level light. So now there were two still strongly phosphorescing diamonds and one of low output. Well, by the time it reached 17 minutes with no change in the glowing stones, I thought I had better leave them to it. I left the stones in situ in the dark testing room and came out. I went back after 10 more minutes, and again after a further 15 minutes. I had to wait for several minutes in the darkness for my eyes to register the 0.20 ct stone, but only for a few seconds to see the other two. No change then. One hour and 17 minutes after starting the test, the two small stones were difficult to see, but not the large stone.

Checking at intervals, after two hours, the larger stone was now looking dimmer. By 5:15 p.m. after exactly three hours, I called a halt to the test as the ring would have to be placed in the strongroom. I couldn't believe it. After three hours, this diamond was still giving out light.

The next day, I began at 11:00 a.m. with the diamond having 15 seconds exposure to LWUV. At 5:15 p.m., I needed to put the ring in the safe and it was still glowing. By now I had to stand in the darkroom for 7 minutes before my eyes would register the very faint glow. 6 hours 15 minutes. Simply amazing! The following day I exposed the diamond to a new dose of ultraviolet at 11:00 a.m., placed it into a black 35 mm film canister and locked it in the strongroom. Checked at 11:00 a.m. the following day, after eight minutes adaption time in the dark room, there was the dull glow. Twenty-hour hours: what can I say? Placed back in the canister, it was checked again at 5:00 p.m. Now it took 10 minutes for my eyes to just register the extremely low level glow. This diamond had phosphoresced for 30 hours! I took it for a short time into the office with the standard fluorescent lighting on the ceiling and then back to the dark room. My eyes were still dark-adapted to a certain extent and were able to see very distinctly the stone phosphorescing after this short exposure to normal office lighting. Whilst in the darkroom, I rubbed the stone vigorously on a piece of bare wood and was able to notice a relatively bright, pale yellow triboluminescence and, yes, for a short

time afterwards some phosphorescence of very pale green, but only for two or three seconds.

The next day was to be the last available time with the ring. As it was bright, with sun coming through the window, I exposed the ring to the sunlight for about 15 seconds and transferred it to the darkroom. Without having to wait for eyes to be adapted, the stone showed strong pale green phosphorescence. So, over the last few days, I had probably spent more time looking at this stone (all be it in a dark room) than any other gemstone.

Whilst carrying out these tests, another diamond ring came onto my desk. This contained a round brilliant-cut diamond 7.5 mm in diameter and weighing about 1.70 ct, which had a bluish haze in daylight, superimposed on a light brown to brown body colour (4). The shoulders were set with four small diamonds. Could I resist it?

In the dark room, the fluorescent colour was a whitish blue and, quite unexpectedly, two tiny diamonds set in the shoulders of the ring fluoresced bright yellow (5). The strength of the fluorescence of the main diamond would be classed as strong to very strong.

However, the fluorescence of the 2.10 ct diamond described above (which we still had) by comparison would have to be called exceptionally strong. It was at least twice as bright as that of the brown stone. This comparison was consistent with the phosphorescence: very much brighter in the larger oval diamond than



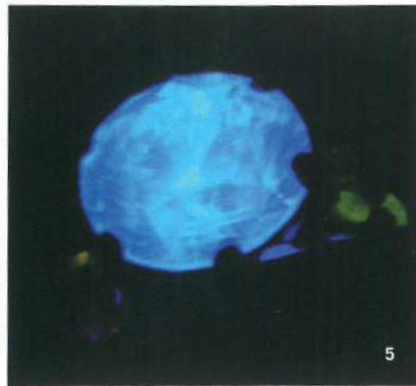
Ring with round light brown diamond estimated at 1.70 ct

## Test Results

See also Table 1.

1. The diamonds that appeared 'normal' in daylight but gave a strong blue fluorescence under LWUV, showed a phosphorescent afterglow of up to 10 seconds duration and then none at all.
2. The diamonds that showed their blue fluorescence in daylight, giving a bluish haze to the appearance of the stones, gave a phosphorescence that lasted well beyond 10 seconds and up to an hour. Some of these stones would show a big reduction in the light emission after seven to ten seconds, but would emit a much reduced glow for the next hour or so.
3. A diamond of approx 2.10 ct, with a pale yellow body colour (K) but decidedly bluish in daylight (similar to a 'Premier' diamond), with exceptionally bright, light blue fluorescence, gave a yellow phosphorescent afterglow that was still visible (only just) 30 hours after a 15 seconds exposure to LWUV light.
4. The diamond of approx 2.10 ct also showed strong phosphorescence after exposure to sunlight and after being held very close to the standard lamp used in diamond grading, and it displayed some phosphorescence after short exposure to ordinary office fluorescent lighting (after allowing eyes to be adapted somewhat to dark conditions). This stone also showed some phosphorescence after exhibiting triboluminescence.

The stones that continued with a low level emission for an hour or more, required the viewer to have fully adapted eyes to register this tiny amount of light. The actual strength of the phosphorescence in these cases might be indicated by how much time it took to register the glow by the human eye in a totally dark environment: e.g. it may take perhaps 7, 8 or 10 minutes to perceive a glow, although these figures would be subject to individual variations such as fatigue.



*Diamond of about 1.70 ct showing blue fluorescence and two of the small shoulder diamonds showing yellow fluorescence*

the brown one, and strong enough for the oval diamond to register on the camera at 4 seconds exposure.

The phosphorescence of the brown diamond was a pale greenish yellow, and that of two of the smaller shoulder stones was the same yellow as their fluorescence. One of the two small stones reacted as most phosphorescent diamonds, and grew dim after the normal eight to ten seconds. The other shoulder stone and the main diamond continued glowing, but the smaller diamond was more noticeable in strength. Being wiser than I was the week previously, I left them for one hour before checking again.

The seven minutes eye-adaption time passed and I thought that was it, no more light emission. Then, after eight minutes, the small shoulder diamond came gently into view; a tiny yellowish dot. I had picked up the ring and was holding it in front of my face and now had to move the ring up and down and in circles to make sure I was seeing the diamond and not an image just inside my head. After ten minutes a very hazy greenish main diamond was just visible. This was so low in strength that I reckoned I must be at the very limit of light perception by the human eye.

The little shoulder diamond that fluoresced/phosphoresced yellow was interesting, as there are not too many stones that show a good yellow fluorescence and I could not remember seeing phosphorescence of this colour before. I have a light yellow natural colour diamond of 0.13 ct that gives a bright buttercup yellow fluorescence, so I checked this one for phosphorescence and there was no perceivable reaction at all.

The day after the brown diamond had been submitted, a loose round brilliant of 1.01 ct came in for grading. The colour was just I, on the H/I border, with strong blue fluorescence. The difference here, however, was that the fluorescence was not noticeable in daylight.

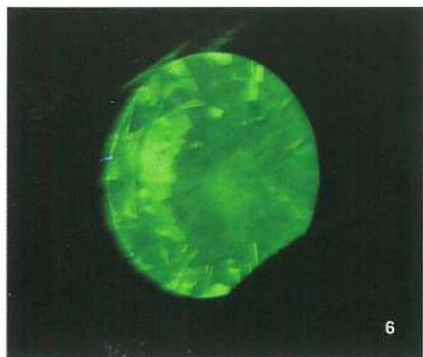
*Table 1: Fluorescence and phosphorescence behaviour of eleven diamonds*

Carat weight	Colour	Fluorescence		Phosphorescence		
		Colour	Visible in daylight	Colour	Duration	
					main	extended
c.2.10	K	blue	yes	yellow	2 hours	30 hours
c.1.70	lt. brown	blue	yes	lt. green	7 secs	1 hour
c.0.015	c.L	yellow	no	yellow	2 mins	1 hour
0.20	G	blue	yes	yellow	10 secs	1 hour
0.24	H	blue	yes	yellow	1 hour	1 hour +
0.14	G	blue	no	yellow	10 secs	none
0.24	P	blue	no	yellow/orange	40 secs	none
0.13	lt. yellow	yellow	no	none	-	-
0.98	M	lemon yellow	no	pale yellow	35 secs	none
0.52	H	blue	no	yellow	20 secs	none
1.01	I	blue	no	yellow	10 secs	none

*NB: Fluorescence colour of the first diamond is Exceptionally strong; all the rest are Very strong.*

# Beads, jewellery and rare gems – testing times at the Gem Discovery Club

Guest specialists at Gem-A's Gem Discovery Club



Loose round brilliant of 0.98 ct, showing lemon yellow fluorescence

Comparing it to the brown diamond, the fluorescence was of similar strength, except that the colour was blue, rather than the ghostly whitish blue of the brown diamond. The phosphorescence of the 1.01 ct diamond was dark yellow, not of great strength, ebbing away before seven seconds and gone by ten. I stayed with it for 10 minutes, but there was no sign of any glow.

I tested a few more stones and the results are listed Table I. A round brilliant cut of 0.98 ct showed a very strong lemon yellow fluorescence (6) with a pale yellow phosphorescence which lasted for just over half a minute.

The absorption spectrum of the first diamond described above, the oval 2 ct plus stone, showed a strong line at 415 nm, a narrow line at 478 nm and a faint, woolly band around 450 nm, which is typical of light yellow diamond.

There is very little in the literature on diamond phosphorescence, other than stating that it exists. The only reference I could find about length of phosphorescence was in Anderson's *Gem Testing*, where it stated that "a fairly persistent yellow phosphorescence can be observed." I don't think even Basil Anderson had 30 hours in mind when he wrote 'fairly persistent'!

## Conclusion

After spending many years in gemmology thinking that some diamonds show phosphorescence which may only last for a short time after being removed from a UV source, I was dumbfounded to find that the one diamond that prompted this study still showed some light emission after 30 hours. □

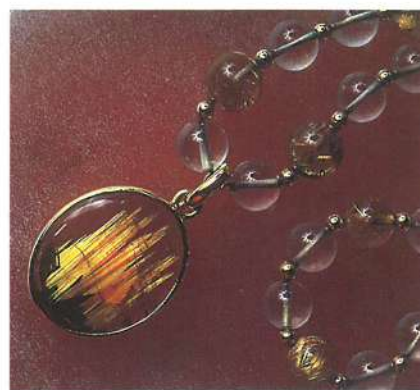
The Club's March specialist was Gem-A President Alan Jobbins. Alan has been collecting gems and crystals for over half a century, and brought along a selection for Club members to examine. "Write down your first impressions of each stone, using only your loupe," he suggested, "before testing with other gem testing equipment." Gems of particular interest included a twinned phenakite crystal from Burma showing a interesting inclusions, translucent 'honey' coloured jadeite and black coral showing yellow-brown transparency, but the item that proved most difficult was a necklace identified by Alan as greenish-brown bezoar beads – calcium-phosphate (brushite) – from the stomachs of camels and horses (used in Medieval medicine). At the end of the evening Alan described each sample and explained the identifying features.



Fuchsite beads

Marcia Lanyon brought along a selection of bead necklaces to the Club in April. Marcia gave a brief talk on the bead market today; she stressed how important it was for her to follow fashion trends and to know the following seasons' colours before going on a buying trip. The beads selected were of interest to Club members either as a material not normally used for beads or because of their unusual cut or shape. The fuchsite beads illustrated are a

particularly good example, being an unusual material – apparently it is similar to aventurine quartz only with more mica than quartz (fuchsite-quartz?) – as well as an interesting shape.



Rock crystal with rutile inclusions mounted in 18ct gold as a detachable pendant

Describing herself as a collector of wearable jewellery, the Club's May guest specialist, Cecilia Pople, gave a brief slide show which included pieces made from some of the more unusual gem materials, many of which were available for inspection. Cecilia admitted to a particular liking for pleochroic stones and materials with interesting inclusions and internal reflection effects, which was evident from the samples she had brought along (a typical example is the rock crystal with rutile inclusions shown above). Among the items Club members were able to examine were pearl and bead necklaces, and organic materials including a jet collar, some fine red coral beads and a brooch of tortoiseshell pique work, a technique which was unknown to a number of members.

The Club meets every Tuesday evening at the Gem-A headquarters near London's Hatton Garden. For further details visit [www.gem-a.info/membership/gemClub.htm](http://www.gem-a.info/membership/gemClub.htm) or call Dawn on 020 7404 3334.

# Scottish Branch Conference

Each year when we review our conference with smiling satisfaction, we wonder how on earth we are going to top it for next year. But yet again, we have done it! This year saw a varied programme with the accent very much on fun and fellowship.

Keynote speaker Shane McClure, Director of the GIA West Coast Laboratory, gave two presentations with 'up-to-the-minute' developments at the GIA laboratory (including information which had been emailed to Shane just before his lectures!) centring on treatments and gemmological 'oddballs'. He placed particular emphasis on the latest glass-filled rubies and, with the aid of some excellent photomicrographs, how they may be identified. He also reported in detail on the most recent diamond lasering techniques and some 'incidental' damage caused by the lasering.

Other speakers included Jonathan Condrupe who gave a presentation on the Queen's personal jewellery with special permission to use private royal

photographs, Colin Winter who covered every conceivable aspect of the world of spectroscopy, and Hal Redvers-Jones with a fascinating presentation on Whitby jet. Brian Jackson deserves credit for tackling one of nature's most complex species group, feldspar: composition, structure and phenomena were explored in detail. Brian set out to unravel the confusion surrounding this group of gemstones and he succeeded with great clarity and humour. Maria Alferova from the Moscow State University gave a whistle-stop tour of Russia's gem producing areas. A vast array of stones was presented reflecting the country's varied geology and size.

The Ceilidh (dinner and dance) on the Saturday night was the social high-point of the weekend, particularly for the delegates from overseas. It was good to see so many of the chaps turned out in national dress – it made for a colourful occasion and was enjoyed by all.

The workshop sessions on the Sunday afternoon gave an opportunity for



Keynote speaker Shane McClure (left) with John McInnes



Conference field trip: Collecting jasper at Campsie Fells. From the left: Ray Rimmer, Loudan Finlay, Gillian O'Brian, Mac Heatlie and Brian Jackson

delegates to get physically involved with gemmology. This year saw an even greater range of displays and demonstrations than on previous occasions covering gemstones, instruments and gemmological techniques. The practical sessions using the spectrometer and microscope and the new practical introduction to diamond grading proved extremely popular. There was also a display by the three jewellery design students from the Edinburgh College of Art, Sally Patrick, Hannah Simpson and Hayley Smith, who were the 2005 winners of the Scottish Branch Design Awards for gem-set jewellery.

For most delegates the Conference ended with dinner at a local restaurant on the Sunday evening, but there were a few hardy folk that stayed on for the field trip on the Monday morning to the Campsie Fells to collect jasper. It was a successful day by all accounts, with tales of large yellow and red jaspers being collected by those with sufficient energy remaining after a wonderful, albeit sleepless, conference.

## Midlands Branch Conference

This year's conference was held on Sunday 13 March at Barnt Green in Worcestershire. The theme was Synthetic Diamonds with two main speakers – Doug Garrod from Gem-A and Alan Hodgkinson, President of the Gem-A Scottish Branch.

The morning session was conducted by Doug Garrod who gave a presentation covering the history of diamond synthesis from the first occurrence by General Electric in 1954 to the latest Chemical Vapour Deposition (CVD) process. Doug then concentrated on synthetic diamond recognition. A selection of synthetic diamonds and instruments used for their detection were displayed. Following his presentation, Doug demonstrated to small groups the operation of the DiamondSure™ with a set of natural and synthetic diamonds.

After a delicious lunch Alan Hodgkinson gave a talk on some of the many things he had seen relating to diamond at the Tucson Gem and Mineral Show this year. During his interesting and enlightening talk Alan covered the treatments used in the enhancement of natural and synthetic diamond, including irradiation and heat treatment.



Alan Hodgkinson (left) displaying stones he had acquired at the Tucson Show, with Midlands Branch President David Larcher and Avril Plant

Delegates had the opportunity to talk to Alan and Doug, and to examine some of the specimens Alan had brought back from Tucson. A diamond-based quiz had been organised to test the knowledge of the delegates, with Grand Cru champagne prizes, and this drew much interest and discussion.

The Conference finished in the late afternoon and was a great success. All the delegates thanked Gwyn and Tony Green for the organisation and the splendid venue for the conference. □

Paul Phillips



Doug Garrod (left) demonstrating the DiamondSure™ to Kate Hopley, Vanessa Paterson, Samantha Davis, Michelle McCormick, Aleks Dille (bending) and Mike Costello



Sally Patrick, who had gained first prize in the Scottish Branch Design Awards, receiving her certificate and prize from Branch President Alan Hodgkinson

As always, tremendous efforts were made in the preparation of the conference and while thanks are due to all the committee members, particular thanks are given to our devoted secretary Catriona McInnes whose tireless work and boundless enthusiasm makes the whole thing happen in the first place. □

Adrian Smith  
Scottish Branch Committee

### Thank you...

The Scottish Branch Committee would like to take this opportunity to give very sincere thanks to:

**Sponsors:** T.H. March, Marcus McCallum, Alistir Wood Tait and the Guild of Valuers and Jewellers.

**Major Supporters:** The Association of Jewellery Appraisers, Edinburgh Assay Office and Henderson the Jewellers.

**Supporters:** AppraiserTech, BKT (Rings) Ltd, Joseph Bonnar, Cairncross of Perth, Enhance Business Coaching, Jamieson and Carry, 'Joy' by P.J. Watson, the Perthshire Jewellery Company and TJW Diamonds.

# Postage stamps depicting jewellery and gemstones

HARRY LEVY combines his hobby of philately with his love of gemstones

Most of us have collected postage stamps sometime in our lives. Many grow out of this hobby and only use them for their own postage and throw away any stamps they receive on letters. Stamp collecting has always been a large industry with many thousands of collectors all over the world. Traditionally people collected all stamps and after a while, realising that so many had been printed, began to specialise, usually in collecting stamps from one particular country or of a certain era.

In more recent years people began to collect stamps by subject matter. Thus they could collect stamps depicting bridges, music, paintings, flowers, trains, birds and so on. This became known as 'thematic' collecting, or 'topical' collecting in the United States.

These themes, in many cases, began to be too large; there are many stamps

printed showing, say, trains. So began further specialisation within a theme, so a collector of flowers would concentrate on only roses, or one on bridges would collect only suspension bridges. A theme that has become more and more popular is that of collecting stamps depicting minerals, gemstones and jewellery. The popularity of these themes is shown in that many postal authorities are printing more and more stamps depicting these topics. Postal authorities now pander to collectors realising that they can raise revenue other than just through their use as postage. An interesting game has developed with the proliferation of such stamps, in that collectors of minerals on stamps often find that the crystals shown often are more imaginative than a true representation of known specimens.

However, there are many stamps that



Russian stamps depicting jewellery

have become classic and I will try to present stamps of interest to both gemmologists and jewellery historians. In this issue I illustrate a Kenyan set showing gemstones and a Russian set showing jewellery. □



Kenyan stamps depicting minerals

## UK Auctions Summer 2005

### BONHAMS

([www.bonhams.com](http://www.bonhams.com))

#### Knightsbridge, London (tel: 020 7393 3970)

Jewellery: 20 July, 10 August, 7 and 28 September

(For sales at other UK venues visit Bonhams' website)

### CHRISTIE'S

([www.christies.com](http://www.christies.com))

#### King Street, London (t: 020 7839 9060)

Important jewellery: 15 June

#### South Kensington, London (t: 020 7930 6074)

Jewellery: 12 July

Fine jewellery and rings: 13 September

### DREWEATT NEATE

([www.auctions.dreweatt-neate.co.uk](http://www.auctions.dreweatt-neate.co.uk))

#### Donnington, Newbury, Berkshire (t: 01635 553553)

Jewellery and silver: 6 July

Priory sale with jewellery and silver: 20 September

#### Godalming

Jewellery and silver: 20 July

#### Apsely Road, Bristol

Jewellery and silver: 6 September

#### Neales, Nottingham

Jewellery and silver: 22 September

### FELLOWS & SONS

([www.fellows.co.uk](http://www.fellows.co.uk))

#### Birmingham (t: 0121 212 2131)

Second-hand Jewellery and Watches (by Direction of Pawnbrokers Nationwide): 23 June, 7 and 28 July; 11 and 25 August; 15 and 29 September

Antique and Modern Jewellery: 21 July and 8 September

### GARDINER HOULGATE

#### The Bath Auction Rooms, Bath (t: 01225 812912)

e: [auctions@gardiner-houlgate.co.uk](mailto:auctions@gardiner-houlgate.co.uk)

Jewellery (some pawnbrokers): 6 and 20 July; 3, 17 and 31 August; 14 and 28 September

### SOTHEBY'S

([www.sothebys.com](http://www.sothebys.com))

#### New Bond Street, London (t: 020 7293 5000)

Fine jewels: 13 June

*Dates correct at time of going to press but may be subject to alteration.*

## Coronation tiara and Helena Rubenstein's pearl necklace

The Harcourt emerald and diamond set tiara and a natural pearl necklace owned by Helena Rubenstein will be among the items auctioned at Christie's King Street on 15 June.

Also offered will be a selection of important gem-set jewellery, including a diamond-set necklace estimated at £50,000 to £70,000.

The tiara is composed of seven diamond-set flowerheads each set with a centre emerald, with diamond-set ribbon motifs between. The tiara was worn by the Dowager Viscountess Harcourt at the coronation of King George VI in 1937 and by her daughter, Lady Ashburton, at the coronation of Her Majesty Queen Elizabeth II in 1953.

The natural pearl necklace worn on many occasions by Helena Rubenstein, dates from the early twentieth century. □



*The Harcourt tiara to be auctioned at Christie's on 15 June. Photo: Christie's Images Ltd 2005*

# Pectoral Cross made by London silversmith

The Pectoral Cross, presented by the Archbishop of Canterbury, Dr Rowan Williams, to the new Pope, Benedict XVI, when they met for the first time in the Vatican on 25 April, was designed and made by leading London silversmith Richard Fox. The cross was specially commissioned to be given by the Archbishop of Canterbury to mark the start of the new pontificate.

The silver cross, which measures 110 mm by 80 mm is powerfully symbolic despite its simple shape. The four points of the cross are set with square amethysts set in gold mounts and at its centre is another smaller gold Canterbury cross. The Celtic style of the central cross is based on that of a cross which dates from c. AD 850, which was found in the late nineteenth century at Canterbury, hence its name.

Richard Fox explained: "By including a copy of the Canterbury cross we were confirming the link with Canterbury and the theme of the past, present, and



Pectoral Cross. Photograph: Adrian Franklin

future is therefore fused in one simple but powerful symbol."

The cross, presented to the Pope in a specially made inscribed leather case, was hallmarked at the London Assay Office with the sign of the leopard's head. □

## Some more on tanzanite

Following on from the article on tanzanite in the last issue of *Gems & Jewellery*, Gemmological Association member Dr John Saul has passed on to us the minutes of a meeting of the Geological Club of Nairobi held on 12 October 1971 at which Mr A.M. de Quadros, then of the University of Nairobi, gave a talk entitled 'Tanzanite: The New Gemstone'.

According to the brief report of this talk: Mr de Quadros recounted the history of the discovery of tanzanite by Mr Manuel D'Souza who had moved to Mwanza to Arusha in 1964 and who made the discovery of the mineral in the Meralani Hills, 25 miles SE of Arusha, on 7 July 1967. At first the mineral was mis-identified as dumortierite and cordierite, but determinations at the British Museum (Natural History) and the University of Heidelberg proved

it to be a blue variety of zoisite which later received the romantic varietal name of tanzanite.

This history accords essentially with other accounts, but the first identification of tanzanite at the British Museum (Natural History) and at Heidelberg does not appear to have been noted, even in P.C. Keller's 1992 *Gemstones of East Africa*.

The report of this talk also included comprehensive details of the chemical and gemmological properties of tanzanite with the interesting note that Professor Hurlbut "had listed 40 different [crystal] forms, including 17 new ones."

We are grateful to Dr Saul for bringing this to our attention and to Mr de Quadros for permission to quote from it.

# June Puzzle

## Su Doku

Su Doku has become a popular puzzle in recent months in the UK. The aim is to fill in every square in a 9 x 9 grid so that every row, every column and every 3 x 3 box contains the digits 1 to 9. There are daily puzzles in several national newspapers and in some cases they have replaced crosswords in popularity.

Some of the squares are given with digits in them and the rest are left blank. The aim is to fill in the missing squares so that the completed puzzle conforms to the above rules. The puzzles are graded as easy, mild, difficult, fiendish, etc, and this depends on which squares have been blanked out.

I give an example of a completed square and the puzzle I am setting is what is the 'simplest' way to complete the one in which I have filled in the first line.

Example of completed puzzle:

1	7	5	4	8	2	6	3	9
8	6	3	7	9	1	2	5	4
9	4	2	3	5	2	8	7	1
5	2	4	8	7	3	1	9	6
3	9	7	1	6	4	5	2	8
6	8	1	5	2	9	3	4	7
2	1	6	9	3	7	4	8	5
4	5	9	2	1	8	7	6	3
7	3	8	6	4	5	9	1	2

Puzzle to complete:

1	2	3	4	5	6	7	8	9

In the next edition I will show that this is not a mathematical puzzle, and how it can be related to gemstones.

Harry Levy



## Answer to the puzzle in the March issue

### Grandma's ring

There is no correct solution to the puzzle of the repaired ring. We can form conventions about this but most of us have instinctive feelings as to what the solution should be.

Most feel that if only minor repairs are carried out then it is still the same ring, whereas if every part is replaced then it ceases to be the same ring and is now a replica or a copy.

However, this solution does not always work, because if we replace parts over a period of time, we would still like to call it 'the same'. Thus, if I repair my car by replacing a door handle I would not need a new set of number plates. If a few months later I have an accident and replace a door and a wing it would still be the same car. I could go on doing this over a period of years and when eventually I have replaced the last part of the original car, it would still be the same from a car taxation point of view. I could retain the original number plate.

This type of thinking is, however, counter-intuitive as most will agree that when all the parts have been replaced it ceases to be the same. If, for example, one was approached by the tax authorities saying it is now a different car to the original although the parts are of different ages, we would, perhaps reluctantly, agree that tax should be paid on it again.

However this raises another interesting point. We are all born and eventually die but we remain the same person throughout our life. But science and biology tells us that the cells in our body have a life span of at most about 7 years each, and that they die and are being constantly replaced. So after a period of say ten years, every cell in our body has been replaced, some more than once. We also have cell degeneration, that is the new cell is not always identical to the one it replaces. So if we agree that if all the parts of an object have been replaced it is now a copy or a replica, what makes me the same person I was twenty years ago? □

## Forthcoming SJH lecture

Tuesday 27 September

**MONICA JACKSON**

*Gold Hellenistic Jewellery: The Significance of the New*

Monica Jackson is a graduate of the Universities of Queensland and Sydney, Australia. She is associated with the Australian Archaeological Institute in Athens, and has taken part in Australian archaeological expeditions in Macedonia and Cyprus. Her primary research interest, on which she will speak on this occasion, is in Hellenistic jewellery, and she has published papers in academic journals.

## SJH Meetings 2005

Unless otherwise stated, all lectures are held at the Society of Antiquaries, Burlington House, London W1 and start at 6.00pm sharp. Lectures are followed by an informal reception with wine. Meetings are open only to SJH members and their guests. A nominal charge is made for wine to comply with our charity status.

Tuesday 28 June

**OTTO KUENZLI**

His Life and Work

Tuesday 27 September

**MONICA JACKSON**

Gold Hellenistic Jewellery: the Significance of the New

Tuesday 25 October

**LYNNE BARTLETT**

Titanium: the Rainbow Metal

Tuesday 22 November

**MARGARET SAX**

The Development of Gemstones/ Cylinder Seals in Mesopotamia

The Society welcomes new members and would ask them to make themselves known at meetings to Committee Members, who will in future wear name badges.

The convivial partaking of refreshments after lectures is also an opportunity for members to exchange views and information about jewellery, and is an important part of the Society's activities.

## Gerald Hugh Tait. 1927 - 2005

Hugh Tait died on 12 April 2005. He was a scholar of international reputation in many aspects of Medieval and post-Medieval studies, in particular glass, ceramics, enamels and jewellery. As a senior curator in the British Museum from 1954 until his retirement in 1992, he was responsible for numerous major exhibitions and publications.

Hugh was a founding member of SJH in 1977, and was a familiar figure at the Society's meetings as a regular lecturer, long-serving committee member, and for several years, as Chairman. His readiness to dissent from accepted opinions and to ask difficult and searching questions always enlivened committee meetings. The last such meeting that he attended was in February 2005, less than two months before his death.

We shall miss him.

# Members' meetings

## Gem Discovery Club Specialist Evenings

Once a month Club members have the opportunity to examine items from the collections of gem and mineral specialists. Short introductory talks are followed by hands-on sessions under the guidance of the guest specialist.

### Tuesday 12 July BRANKO DELJANIN

Use of laboratory instruments to detect natural and synthetic diamonds.

### Tuesday 30 August MAGGIE CAMPBELL PEDERSEN

Organic gemstones – natural and imitation

### Tuesday 4 October HAROLD KILLINGBACK

Asterism and chatoyancy

## Midlands Branch

Friday meetings will be held at the Earth Sciences Building, University of Birmingham, Edgbaston. For details call 0121 445 5359.

### Saturday 18 June Summer Supper Party

### Friday 30 September MICHAEL HOUGHTON

Cultured pearls – evaluation workshop

### Friday 28 October GWYN GREEN

Identification of gem materials using a microscope

### Friday 25 November JENNY SWINDELLS

History of buttons – gem, organic, etc.

### Saturday 10 December Annual Branch dinner

## Midlands Gem Club

For details contact Paul Phillips on 02476 758940  
e-mail pp.bscfgadga@ntlworld.com

## North East Branch

For information call Neil Rose on 0113 2070702  
e-mail gema.northeast@gemro.com

### Wednesday 15 June JOHN CARTER

The Chinese pearl revolution

### Thursday 3 November BRIAN DUNN

The Naughty Nineties

## North West Branch

Meetings will be held at the new venue: YHA Liverpool International, Wapping, Liverpool L1 8EE. For further details contact Deanna Brady on 0151 648 4266.

### Wednesday 15 June DAVID CALLAGHAN

1960 and all that

### Wednesday 21 September STEPHEN WHITTAKER

Some you win, some you lose!

### Wednesday 19 October MAGGIE CAMPBELL PEDERSEN

Gems of life

### Wednesday 16 November AGM and social evening

## Scottish Branch

For details call Catriona McInnes on 0131 667 2199,  
e-mail scotgem@blueyonder.co.uk

## South East Branch

For details contact Colin Winter on 01372 360290, e-mail info@ga-seb.org or visit the branch website at www.ga-seb.org

### Sunday 26 June MAGGIE CAMPBELL PEDERSEN

Amber and fakes

## South West Branch

Contact Richard Slater on 01635 553572

## Gem-A Conference

### 30 October 2005 The Inside Story: the inclusions in gemstones

A celebration of the life and work of Professor Dr Edward Gübelin

It was with great sadness that we announced in *The Journal of Gemmology* (2005, 29, 5/6), the death of Professor Dr Edward Gübelin. As a tribute, the 2005 Gem-A Conference is to be a celebration of this remarkable man and his enormous contribution to the world of gemmology. The theme of the Conference, 'The Inside Story: the inclusions in gemstones' recognises Professor Gübelin's lifetime work in the use of inclusions in gemstone identification.

**Keynote Speaker: JOHN I KOIVULA**  
The keynote speaker at the event will be Professor Gübelin's great friend and co-author of the *Photoatlas of Inclusions in Gemstones*, John I. Koivula, of the AGTA Laboratory in California. Volumes 2 and 3 of the *Photoatlas* are in preparation and it is anticipated that Volume 2 will be published in the autumn.

The full panel of speakers is yet to be confirmed, but will include leading names in the world of gem identification.

A programme of events will be arranged to coincide with the Conference, including the Presentation of Awards to be held at Goldsmiths' Hall in the City of London on the evening of Monday 31 October.

Full details of this important event will be circulated to Gem-A members in July.

## Photo Competition

The results of the 2005 Photo Competition on the theme 'Rare Treasures' will be announced in June on the Gem-A website at [www.gem-a.info](http://www.gem-a.info)

For up-to-the minute information about Gem-A meetings and events, visit our website at [www.gem-a.info](http://www.gem-a.info)



d a v i d  
g a n n

63-66 Hatton Garden  
London EC1N 8LE

tel: 020 7405 2145

fax: 020 7430 2585

email: sales@davidgann.co.uk

diamond merchants

celebrating 20 years of successful trading in loose diamonds

## FELLOWS & SONS

Auctioneers & Valuers of Jewels, Silver & Fine Art



Established in 1876 Fellows & Sons are one of the UK's leading provincial auction houses, specialising in the sale and valuation of jewellery & watches, silver, furniture and collectables.

We hold over 30 auctions per annum of fine diamond and gem set jewellery; loose gemstones; memorial jewellery; novelties; and wrist and pocket watches, including Rolex, Piaget & Patek Phillippe.

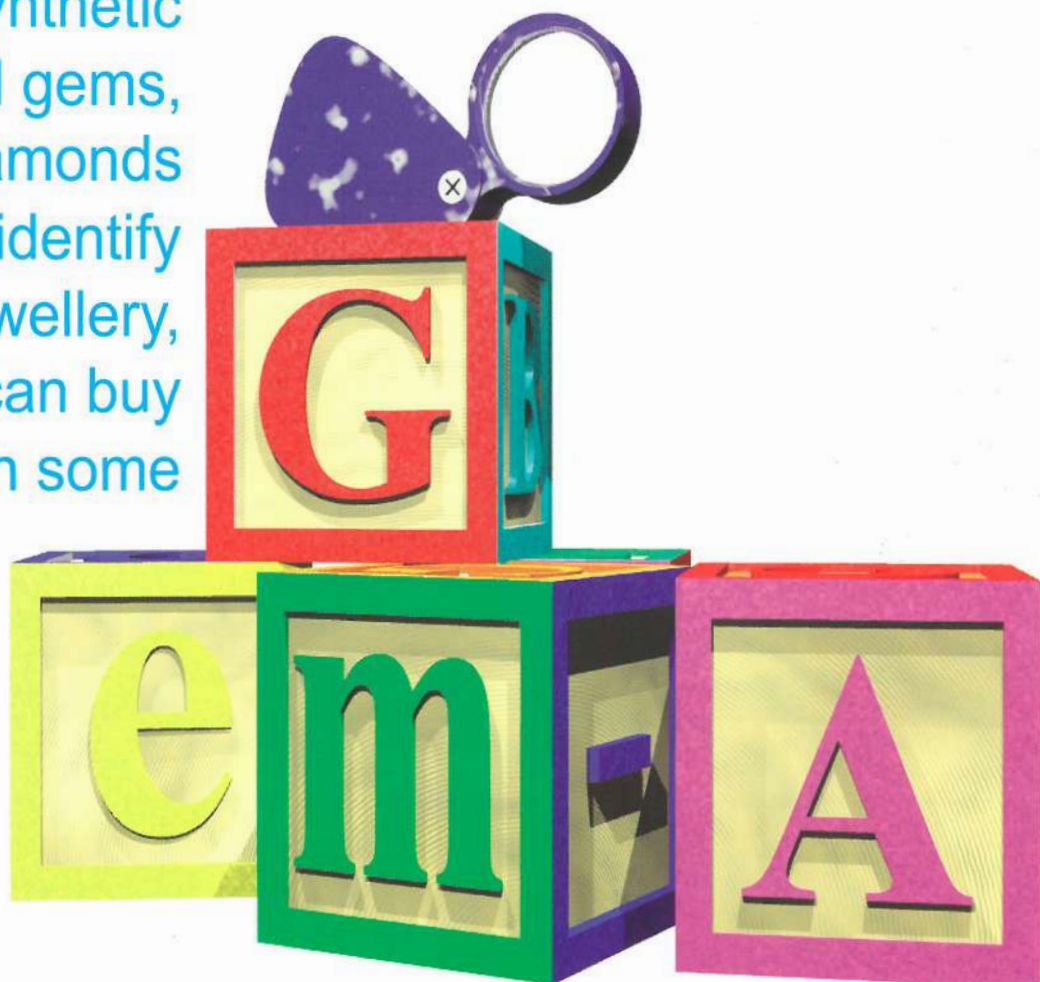
Fully illustrated catalogues are available on our website [www.fellows.co.uk](http://www.fellows.co.uk) and our Antique & Modern Jewellery & Watches auctions are available live on the internet to bidders around the world on [www.ebayliveauctions.com](http://www.ebayliveauctions.com)



Contact us now for further information on our services

Augusta House, 19 Augusta Street, Hockley, Birmingham B18 6JA  
Tel: 0121 212 2131 Fax: 0121 212 1249

If you think  
it's child's play  
to spot synthetic  
and treated gems,  
grade diamonds  
and identify  
antique jewellery,  
you can buy  
loupes in some  
pretty  
colours



For the rest of you we supply the building blocks

Gem♦A

The Gemmological Association and Gem Testing Laboratory of Great Britain  
27 Greville St., London EC1N 8TN

Charity No. 1109555

t: +44 (0)20 7404 3334 - f: +44 (0)20 7404 8843 - e: [info@gem-a.info](mailto:info@gem-a.info) - w: [www.gem-a.info](http://www.gem-a.info)

Worldwide Gemmological Training - Seminars  
Instruments - Books - Laboratory Services