GEM & JEWELLERY NEWS

June 2004, Vol.13 No.2

In this Issue...

The Gemmological Association of Great Britain *and* The Society of Jewellery Historians

NICKEL IN JEWELLERY

In Around the Trade in this issue I have talked about hallmarking and EU Directives affecting precious metals.

A less well known EU Directive concerns that of the nickel content in jewellery. Nickel has been used with gold to help produce white gold and also as a hardening agent as pure gold is very soft; so most gold used in jewellery is an alloy.

Nickel is the most common cause of allergic contact dermatitis of the skin. Ten per cent of the UK adult population have become sensitized to nickel, the main causes being early piercing of ears and wearing costume jewellery. Once developed, nickel allergy is life-long, but nobody is born with it. It can also stay in the skin reactions for up to two weeks after contact.

The EC has produced legislation to eliminate or minimize the use of nickel in jewellery. The Directive has three parts. Part I holds that in general jewellery must not contain more than 500 parts per million of nickel in alloy. Part II applies to jewellery that is in contact with pierced skin such as earrings and body piercing jewellery. The allowable content is less than in Part I. Part III deals with jewellery which is coated covering metal with a nickel content. In this case the plating has to have sufficient thickness and be nickel free.

It is not mandatory for jewellery to be tested for its nickel content and Assay Offices or other laboratories would not normally carry this out unless requested. However local Trading Standards officers can bring prosecutions against those who contravene these regulations. Reputable bullion dealers and those selling findings of precious metals are aware of these requirements and would only sell products that comply with the regulations. Also the larger buyers of jewellery such as the multiples would demand that the jewellery is tested to comply with the Directive. For example the Birmingham Assay Office has a department to test for nickel content.

The problem is becoming significant as more and more jewellery is imported into the UK from countries which are unaware of this problem. Many jewellers and those running one or more jewellery shops now travel to the Far East and to jewellery fairs, and are attracted by the jewellery and their prices. They should be careful about what they buy to sell in this country, as should the diamond and gemstone dealers who are also importing jewellery from India, Thailand and China.

Information on the new Directive may be obtained from HM Stationery Office, the National Association of Goldsmiths or the British Jewellers' Association.

Harry Levy

Front Cover Illustrations (from top)

1) Tourmaline flowers at Emil Becker's. Photo Robert Frost *(see Idar Oberstein page 30).*

2) Diamond Brooch, *c.* 1860. Sotheby's 'Jewels: Antique, Period and Contemporary' Sale. © Sotheby's *(see 'Fine Jewels' page 37).*

3) Brooch in shape of dragonfly, enamel, brilliant, 1900. Anderson Collection of Art Nouveau. UEA, Norwich. Photo: Pete Huggins *(see Exhibitions page 43).*

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HALLMARKING

HARRY LEVY REVIEWS ISSUES WITHIN THE EC

The matters covered in this column are usually devoted to gemstones. Many of those who read the magazine are involved in the jewellery trade so I would like to use a part of this article to talk about some developments in the sales of precious metal, namely gold, silver and platinum.

The most important issue is that of hallmarking within the European Community (EC). Some countries have mandatory hallmarking, others rely on self marking. The jeweller is allowed to stamp the caratage of the gold himself. To those used to marking by an independent authority, such as the Assay Offices within the UK, self marking seems to be open to abuse. However both systems seem to work. In the efforts for harmonization within the EC the Community tried to introduce a system that would apply to all countries. The UK has used Assay Offices for over 800 years, whereas countries such as Italy and Germany do not have this system.

Harmonization

The EC has tried to produce various directives to harmonize the situation and this has been ongoing for over fifteen years. The Assay offices have been in the forefront of the debate; they had the most to lose if hallmarking was eliminated, and within the UK the attitude of the trade towards this question was mixed. Some felt that the need to hallmark was an added expense, time consuming and in some cases destructive of more fragile products. In all cases the costs made them less competitive with imported products that did not need hallmarking. Others thought that eliminating hallmarking would encourage under-caratage and liability to prosecution; they felt protected by their products having a hallmark.

Photo courtesy of Hirsh London Ltd.

Those countries that did not have a hallmarking system could not see themselves adopting a regime that would force them to use independent authorities. Italy is the largest producer of gold jewellery, exceeding the combined product of the other EC countries. Under the Italian presidency of the EC in the last part of 2003, attempts were made to push the vote to eliminate hallmarking. They also felt that with the addition of ten more East European countries, most of whom had hallmarking, would find a future vote go against them. A vote was taken last December but the Italians could not obtain a sufficient number of countries to support them, so the status quo remains. This means that we in the UK must continue to use the Assay Offices.

CIBJO Congress

CIBJO held its annual Congress in Bangkok, Thailand, in late February of this year. The Congress was due to have been there last year but due to the SARS epidemic, the uncertain international political situation and the threat of terrorism it was postponed to this year. The main item was a change to the Constitution of CIBJO to bring it more into line with the current jewellery industry. Sector 1 dealing with manufacturing and Sector II dealing with wholesale distribution, were combined, thus giving CIBJO only three Sectors. Attempts were made to bring new leadership in to the Sectors and Commissions and many Presidents and Vice Presidents were appointed rather than elected. Newer members of CIBJO such as South Africa and Dubai were given leadership posts within the organization.

Attempts were also made to invite more organizations outside CIBJO, such as the World Federation of Diamond Bourses (WFDB), the World Diamond Council (WDC), Laboratories such as the GIA and HRD, in addition to the older supporters such as the Gold Council and De Beers through the Diamond Trading Company (DTC).

One presentation given by the representatives of Dubai pointed out that the sale of jewellery was falling behind the sale of the other luxury items. In the past jewellery was given as gifts, but now a growing number of recipients preferred other luxury items, including holidays and electronic equipment. Surveys were being carried out to discover why such a position had arisen and how it could be rectified. For example De Beers had linked up with the Louis Vuitton Group to obtain a greater share of the luxury market in its reorganization. They felt that our trade was not advertising its wares enough to the buying public

and that the industry should invest much more in marketing. The downturn in the sale of jewellery was affecting the major consumer markets such as Western Europe, North America, the Middle East and Japan. But sales of finished jewellery in the producing countries of the Far East and China were growing rapidly.

The Coloured Stone Commission devoted much of its time to discussing the heating of corundum in the presence of beryllium. Dramatic changes of colour have been obtained using this new process and the trade was in disagreement as to how this should be disclosed.

The laboratories wanted to call this process 'diffusion', but this term has already been used within the trade to refer to a process whereby near-colourless corundum was coated with a metallic oxide, and heated to a sufficient temperature to melt the outside of the stone and introduce colour to the surface of the stone. Thus if such stones are polished or cut or chipped the colour would disappear in those parts.

In the case of beryllium the corundum is heated in the presence of beryllium in the chamber and with sufficient temperature and time colour changes are induced. In most cases the colour now penetrates the whole stone, unlike the earlier attempts when the process was not applied for long enough and the colour was again only on the surface. The laboratories first suggested that such stones should be disclosed as 'mass diffusion' in order to differentiate them from the surface diffusion stones. This was rejected by the trade and the suggestion now made is to refer to them as 'lattice diffusion'.

The laboratories argue that the term 'diffusion' had to be used when the colour is induced into a stone by an agent outside the stone, in this case beryllium. Some traders argue that heating a stone in a reducing or oxidizing atmosphere containing hydrogen or oxygen is no different than heating it in the presence of beryllium. These stones are referred to as 'heated' and the same term should apply even in the presence of another agent.

A similar debate had been addressed in the Gemstone Industry and Laboratory Conference (GILC) meeting held in Bangkok on the day prior to the CIBJO meetings. We seem to be establishing a pattern of holding the GILC meetings in Tucson in late January prior to the Tucson gem show and again prior to CIBJO Congresses. On both of these occasions many dealers and laboratories are present and thus avoid travel that

OBITUARY
ROGER PRICE

Roger Price, who died after a brave fight against cancer on 14 April 2004 aged 67, had a long and distinguished career in the jewellery industry.

A metallurgical chemist by training, he joined the laboratory of a brass foundry but was soon approached by Engelhard Industries to set up a jewellery side to its precious metal operations in the UK. He remained with Engelhard for the next 30 years and rose to the post of General Manager of its UK Jewellery Division.

During his time at Engelhard, Roger Price developed a long-standing involvement with the British Jewellers Association (BJA) and masterminded its centenary celebrations. He became Chairman of the BJA from 1996-1998 and Chief Executive from 1998 until his retirement in 2002. He was also President of the British Jewellery and Giftware Federation in 1995.

With a particular interest for education and training, he headed the BJA's Education Committee for many years and also served on the Education Council of the worldwide jewellery forum, CIBJO. He was instrumental in the establishment of NVQs for the jewellery industry and was closely involved in setting up the Jewellery and Allied Industries Training Council, the body that currently oversees training in the Sector. His work was recognized when he received an honorary doctorate from London Guildhall University. He was also made a Freeman of the Worshipful Company of Goldsmiths.

Roger is survived by his wife Megan, daughter Jacalyn, son Ian and two small grandchildren.

would be necessary if meetings were held at other times and in other venues.

The Diamond Commission was concerned with the recent advances in the treatments of diamonds to improve their appearance, the most important being the high pressure high temperature (HPHT) treatment to change colour. Again there is a problem as to how such stones should be disclosed in laboratory grading reports. The trade is preparing itself for the advent of colourless synthetic diamonds; yellow ones are already being marketed. The DTC announced that it has now produced three instruments to screen for HPHT and synthetics. These are still rather large but at least they are now available and have gone into production.

The next CIBJO Congress will be held in Hong Kong in 2005 and it was proposed that the Congress in 2006 be held in Canada. Holding these congresses outside Europe recognizes the importance of other centres and the truly international nature of a re-invigorated CIBJO.

World Diamond Council

The WDC held a meeting in Dubai in March. This was the first time that such a trade meeting had been held in an Arab country. It is good to see Arab countries taking greater interest in the jewellery industry as they are some of the most important consumers and now producers of jewellery. Dubai has set up a Diamond Exchange which will join the WFDB later this year at the WFDB Congress to be held in New York in October.

The meeting concentrated on Conflict Diamond issues and money laundering by terrorists and other law breakers using the diamond trade. The considerable process achieved during the past two years was marred by an article written by Global Witness criticizing the diamond industry which appeared that morning in the London Financial Times. Global Witness still maintains that the self monitoring of the Kimberley Process is not adequately carried out by the diamond industry. This is denied by the trade, claiming that the Kimberley Process is an inter-governmental process and the checks put in place, especially in the European Community, have been approved by the relevant governments.

The non-governmental organizations (NGOs) maintain that even though most of the conflicts in Africa have now been resolved, they could easily erupt again and diamonds could again be used by rebels to purchase arms. It is hoped that the NGOs will continue to work with the trade and governments to control the flow of illicit diamonds.

The gem trade continues to diminish in the West as more and more jewellery manufacturers close down, unable to compete with those in the East. Those who deal in gemstones and diamonds have to become much more professional as more and more new processes are invented to improve the appearances of gemstones. Our teaching institutions should perhaps create courses to make established dealers aware of these processes and bring them back in the classroom to recognize such stones and the ever improving synthesized ones.

Harry Levy

GEM & MINERAL SHOWS

Munich Mineral Show

29-31 October 2004
Messegelände, Munich-Riem
Main Entrance East Jall A4, A5, A6

For further information contact: Mineralientage München, t: +49 (0)89 6134711 or visit the website at www.mineralientage.de

Tucson 2005

The Tucson 2005 Shows will run from 29 January to 13 February. The American Gem Trade Association (AGTA) show is to be held from 2–7 February, followed by the Tucson Gem & Mineral Society show from 10–13 February.

Visit the Tucson Show Guide site at www.tucsonshowguide.com for dates of all shows, travel information and where to stay.

ROCK 'N' GEM SHOWS

Kempton Park Racecourse
Sunbury-on-Thames
Middx (A308) 7-8 August

Newton Abbot Racecourse
Newton Abbot, Devon
4-5 September

Bath & West Showground
Shepton Mallet, Somerset
25-26 September

Hatfield House
Hatfield, Herts (Jct. 4 A1M)
2-3 October

Cheltenham Racecourse
Prestbury Park, Cheltenham
Glos 16-17 October

Uttoxeter Racecourse
Uttoxeter, Staffs (off A50)
23-24 October

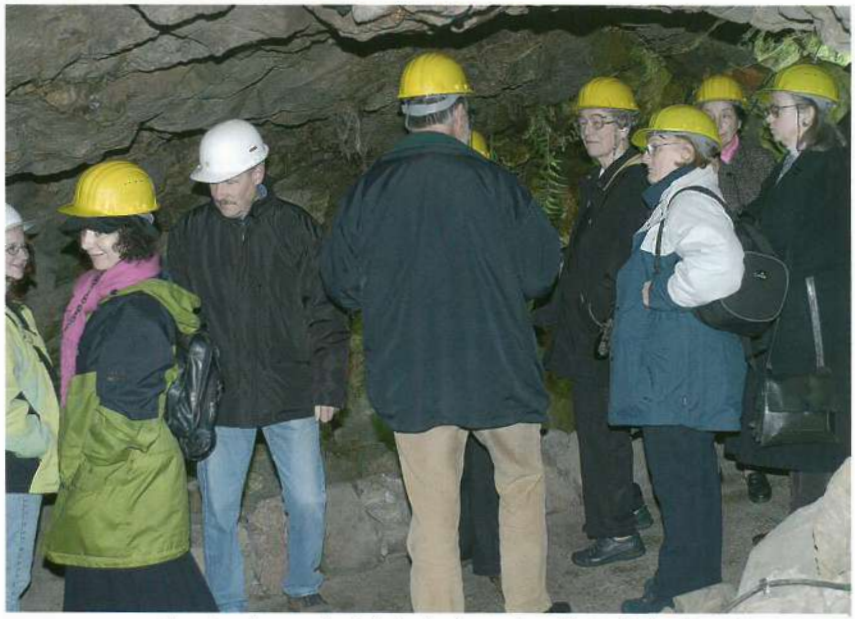
For further information contact
HD Fairs Ltd t: 01628 621697
www.rockngem.co.uk

IDAR-OBERSTEIN
THE GEM CAPITAL OF EUROPE

Report by Elizabeth Passmore: a 'first-timer' on the annual Gem-A visit to Germany.

Each year when reading the account in *GJN* of the visit to Idar-Oberstein I have wished that I could have been among the party. I booked a place for 2004 and hoped the trip would live up to expectations. Twenty enthusiasts obeyed the joining instructions so that on Sunday 14 March at "7.30 a.m. exactly" the coach departed from London. About half the participants had been at least once before; a good omen for the first-timers.

The programme included visits to some places that had been part of previous tours and some new ones. At the Steinkaulenberg mine, hard hats in place, we learned how the mining of agates had laid the foundation for today's gem industry in Idar-Oberstein. What a hard life those early workers had, hewing the rock by hand and once in a while finding a nodule yielding agate that could be worked in the style of the day. The cutting workshop at Bieleschleife looked much as it did decades ago, with the water wheel providing power for an amazing system of belts and pulleys running the cutting wheels and tumbling drums. Jars of interesting looking solutions for colouring the agate were stored in one corner of the shed, but they had no labels: the exact recipes remain closely guarded secrets.



Hard hats in place at the Steinkaulenberg mine. Photo: Robert Frost.

At the Edelstein Museum we had the first hint of just how fortunate we were to be part of the Gem-A group. Herr Thomas Lind, Chairman of the Chamber of Commerce, introduced the collection and highlighted some of the special exhibits we might like to see. However clear the text and good the pictures of stones in books, seeing the real thing is always better. The range of rough material and cut stones was magnificent, especially in showing the variation in groups such as tourmaline, beryl, corundum and garnet. The well-thought out display of the material, the illumination and the labelling provide an exemplar for other museums.

Professor Bank explains. Photo: Robert Frost.

At Gebrüder Bank, Professor Dr Bank gave us a masterly talk on the history of the gemstone industry in Idar and then showed us a selection of stones from his collection. I shall never look at an aquamarine again without remembering his words and visualising his specimens: the blue-green glass someone had tried to sell him as aquamarine; rough material of blue topaz and aquamarine; faceted stones showing the natural range of colour of aquamarine; and specimens of other beryls. There were also some specimens (destined for a museum) that took our breath away;

their colour, cut and size were stunning, particularly the richness of the perfect 75 ct emerald-cut tanzanite.

We were privileged to visit the German Gemmological Association and see students at work in coloured gemstone and diamond grading classes. They were keen to demonstrate the use of the various instruments and discuss their work.

Five times during the visit we arrived outside a fairly ordinary front door of a house only to enter a world we could not have previously imagined. We saw exquisite craftsmanship, beautiful faceted stones and people who clearly love their work. We met three members of the Pauly family producing carvings, each in their individual style. Wonderful cameos, engraved crystals and carved stones, each to be set in a unique piece of jewellery and each craftsman contributing to the continuing history of carving stones, but in a 21st century style.

We gazed at elegant bowls of ruby in zoisite, rock crystal, nephrite and rose quartz and at tables and stunning sculptures. Then we saw how Helmut Wolf transformed interesting looking blocks of stone into these wonderful, highly desirable objects. At Emil Becker's, the beauty of the objects left many of us quite speechless. A 'chocolate Easter egg with pralines', all in stone: good for the waistline, but not the teeth! Exquisite flowers carved in tourmaline and opal (see front cover), and so much more.

Specimens of beryl in the Bank collection. Photo: Robert Frost.

Manfred Wild's version of Harrison's Chronometer. Photo: Robert Frost.

We listened intently as Manfred Wild talked passionately of the work of John Harrison in making his 'sea clocks' in his quest for the longitude prize of 1714 and looked in wonder at Wild's version in rock crystal, gold and diamonds: a truly magnificent object.

On we went to see cabochon cutting and goldsmithing and all the time the list of places we wanted to revisit on the final day kept growing. So we made choices and concluded that the only real solution would be to visit Idar-Oberstein again, just as soon as possible.

We had been promised something special for this 10th visit to Idar. At Gethmann's Hotel we greatly enjoyed the wine tasting of 14 different wines beginning before dinner and continuing throughout the meal. The wine tasting, like everything else, was of high quality, enjoyable and educative. We were fortunate to have good leaders in Doug Garrod, Susanna van Rose and Mike Dickinson, Bill is a first class coach driver, Herr Gethmann a splendid host and the people we met during every visit could not have done more to make the trip a great success. So, did the trip live up to expectations? Yes, and after waiting so long to join the tour, I hope I shall become one of the returners.

After the wine tasting – empty bottles! Photo: Robert Frost.

NEW PORTABLE REFRACTOMETER LAMP

Gem-A Instruments has a new portable lamp for use with any refractometer that requires a separate light source.

It uses an extremely bright yellow light emitting diode (led), with a wavelength of 590 nm, which is virtually on the sodium line and coincides exactly with the calibration of the majority of refractometers. The monochromatic light gives a sharp shadow-edge on the scale and will assist greatly in the determination of double refraction.

The lamp, which is 5 cm wide by 3.5 cm high, is powered by a 20 m/m coin type lithium battery CR2032, or an equivalent, which from new should give at least 45 hours continuous use. The front foot of the lamp is fully adjustable to allow the light to be correctly directed into the light aperture of any refractometer.

Noel Deeks

The lamp is available at £35.00 (plus VAT, postage and packing) from Gem-A Instruments
t: +44 (0)20 7404 3334
e: alan@gem-a.info

The portable lamp in use with a Rayner refractometer.

JEWELLERY TECHNIQUES
TWO-DAY SJH SEMINAR

Ann Louise Luthi reports on the SJH Jewellery Techniques Seminar held on 16 and 17 April at London Metropolitan University and the V&A.

For two days we were all students again. There were 51 of us from eight different countries. Some came from museums, some were dealers, one or two were valuers and there were a great many collectors.

The first day was spent in the workshops of the Sir John Cass Centre for Silversmithing. We divided into five groups and rotated between workshops. Each demonstration was meant to last 45 minutes but we were always so engrossed that we had to tear ourselves away for the next session.

Stone setting was demonstrated by Tony Tigg who told us that he started as an apprentice at the age of 15 and spent five years training. Nowadays students work with CZ stones but when he started they worked with glass which was far more brittle. As may be imagined, he learned to work with great precision. He is now so skilled that he was chosen to set the famous engagement ring for Princess Diana. He explained how the mounter prepares the piece and how he then sets the stone before it goes to the polisher for finishing. Sitting at his workbench, wearing magnifying glasses, he showed us the tools with which he shapes the metal, the oilstone on which he sharpens his tools and, a very vital piece of equipment, the plasticine with which he holds the stone as he guides it into place.

Casting metal is a very different, less predictable craft. Rae Duncan showed us how in the beginning such everyday materials as sand, water and stone were used with very variable results. We saw how two part moulds could be made from cuttlefish or wood which can result in interesting, if unexpected, shapes and textures, and then learned about the more reliable lost wax method. The demonstration ended spectacularly. We went into an adjacent room where a crucible containing metal was heated and, when molten, poured into a wooden mould which promptly caught fire! Fortunately we had all been advised to stand well back and the fire was soon extinguished leaving only a misshapen lump of metal.

Chain making was in the creative hands of Masako Hamaguchi a charming Japanese jeweller. She handed around chains she had made from silver wire, plastic tags and even paperclips. She told us candidly that most chains are more easily made by machine than by hand and can be bought ready made at a fraction of the cost. However, in case we were tempted to spend time on the repetitive task of chain making, she showed us how to anneal the metal, solder the joins and shape the links.

Sarah Wilson works as a enameller and jeweller and discussed with us the different types of enamelling. She showed us examples of her own work and pictures of the work of enamellers she admires. It seems that health and safely restrictions are depriving us of some of the beautiful colours which were used in the past. Yellow may look lovely but cadmium sulphide is definitely not good for you.

Our last session was described as 'fabrication' in the schedule but John Norgate just called it silversmithing. He is a giant of a man who made us realise how physically demanding silversmithing can be. He started by showing us the tools used by a silversmith, some of which looked quite brutal: an impression reinforced by the battered tree trunks used in his workshop. He demonstrated box making, spoon making and showed us how to make bowls. But he trained as a small worker at Aspreys and produced examples of his own work: a coffee pot, a cigarette box and a clock. These were crafted with exquisite precision and refinement.

The second day of the seminar was held in the Jean Muir seminar room at the V&A. We started with a very clear talk by Mark Grimwade on the metallurgy of precious metals concentrating mainly on gold and silver. We learned that gold and silver have been known by mankind for the last 8000 to 9000 years and that all the gold ever found would only add up to 130,000 tons, an amount which could easily be fitted into the Eiffel Tower. More statistics told us that it takes 7500 tons of ore to produce 1 ton of gold. He explained how different alloys not only determine the colour of the gold but also influence the behaviour of the metal. But I'm afraid that when he started talking about the atomic structure of metals, some of his audience found themselves rather out of their depth.

Niamh Whitfield's talk was on a very particular subject. She traced the history of filigree from the Classical period through Scandinavia to the Hiberno-Saxon jewellery of the 7th century.

The practical demonstation we had seen the day before helped us follow Tonny Beentjes as he

gave us an historical account of casting. He showed us an Egyptian drawing which is one of the earliest depictions of metal casting and then traced the development of casting techniques and materials up to the present day when modern methods can reproduce pieces in exact detail and it is even possible to cast metal around stones. There is apparently considerable scope for faking.

The first speaker in the afternoon was the familiar figure of Nigel Israel who took us through the centuries in his own inimitable style. Although he is not himself a setter, he was able, with the help of a great many slides and a fact packed commentary, to demonstrate the precision and patience needed for this very specialized skill.

David Buckton is a Byzantine specialist and he concentrated on his specific subject amazing us with examples of early Christian and medieval enamelling but ended up by showing us enamels which are now thought to be 19th century fakes.

The last and very professional lecture was by Jack Ogden. His computer images 'exploding' on the screen gave us an overall view of the history of the making of jewellery and of the way in which things have changed. He ended with the attempts in the 19th century to recreate granulation and his last slide showed what he memorably called a piece of 'bog-standard Castellani'.

Muriel Wilson and Deirdre O'Day put an immense effort into organizing this seminar. We are all most grateful to them. It was an undoubted triumph and there are already calls for it to be repeated as soon as possible!

ROMAN JEWELLERY
SJH AGM LECTURE

An openwork gold pendant set with a coin and six medallion busts. Late Antique, 4th century AD. Probably from Constantinople (modern Istanbul, Turkey). Photograph © The Trustees of The British Museum.

Catherine Johns summarizes the lecture she presented at the Society's 2004 AGM on 9 March.

In all societies, jewellery has been worn primarily for non-utilitarian purposes. An item of jewellery is usually chosen because it is regarded as beautiful in itself, and is expected to enhance the beauty of its wearer. Fashion exerts an influence: some people derive a special pleasure from wearing antique or heirloom jewels, while others may be proud of owning something very new and outré. Designs traditionally worn in specific countries or communities, so-called 'ethnic' styles, are also important, and those who favour them are making a deliberate statement of personal identity and tradition.

The monetary value of a jewel also makes a clear social point. The person who is lavishly adorned with gold and diamonds may, indeed, have chosen them chiefly for their beauty and quality, but she, or a gift-giver, will also have paid a high price for them. The setting of actual gold coins in jewellery goes back to the Roman period, and is still seen today in many societies: gold and silver are precious metals with a fixed bullion value. Wearing gold jewels is therefore an unequivocal statement about the wealth of the owner. In all societies, wealth tends to confer power, so immediately we can say – no great surprise! – that those who owned and wore gold were affluent and probably had a high social status.

This is not all. Symbolic significance was, and remains, hugely important. Most jewellery carries inner and personal meanings for those who wear it. Some symbolism can easily be understood by others, such as the wedding ring, or a pendant

denoting religious belief and piety. Other meanings are more obscure: for example, jewels that have a special resonance for the owner because they were given or bequeathed by a particular person, or acquired on some memorable occasion. All of these meanings are still familiar today, and with practice, we may learn to 'read' some of them in the jewellery of earlier times. For the archaeologist, the study of jewellery provides one way of gaining insights into these subtle questions of wealth, status, identity and belief in ancient society.

For the purpose of my talk, I defined as 'Roman' all jewellery dating from the 1st century BC to the 5th AD from any part of the Roman Empire, namely, Europe, North Africa and a large part of the Middle East. Our evidence for the styles of jewellery that were in vogue for some 500 years, in Roman provinces as far apart as Spain and Syria, Britannia and Egypt, is similar to that for much more recent times. It consists of actual surviving jewels, references in written sources, and some representations of people wearing jewellery. But because this is archaeology, and the time is comparatively remote, there is less of all that evidence, and what there is tends to be more patchy and incomplete. The actual objects that have come down to us are sometimes in poor condition.

Sculpture occasionally shows jewellery being worn, but it is not always clearly depicted. The only area of the ancient Roman world which has produced a body of painted portraits is Egypt, and this funerary art is beautiful and accomplished. The paintings are enormously informative for archaeologists, because when we

Gilded mummy portrait of a woman. Probably from er-Rubayat, Egypt, Roman Period about AD 160-170. The lady's earrings are made of emeralds set in gold with suspended pearls, and her necklace is composed of a large emerald and a red stone (possibly carnelian) in gold mounts. Photograph © The Trustees of The British Museum.

compare the high-quality gold and gemstone jewellery shown in them with actual finds from other provinces, such as Gaul and Britain, we find that the same designs and fashions were current in Egypt and in the far north of the Empire. Tastes in expensive, precious-metal jewellery tended to be similar over the whole Empire, although they evolved and changed over time. Designs in cheaper jewellery, made of base metals and non-metallic materials, varied more according to region. Those facts alone are important for interpretation of the finds.

When we study the intriguing gold ornaments of the European Bronze Age, we do not always even know how they were worn, but the jewels of the Classical world are familiar, for we have inherited Graeco-Roman types and designs. They are finger-rings, earrings, bracelets, necklaces, pendants and brooches that we can imagine wearing ourselves. There is a stylistic evolution from generally rather plain and restrained designs in the early Empire, towards greater elaboration in the 3rd and 4th centuries, when gold was often embellished with filigree wire or pierced into intricate lacy openwork patterns, and when many different gemstones, such as pearls, emeralds, garnets and amethysts, were boldly juxtaposed in a riot of colour.

Finger-rings were worn by people of all ages and both sexes, and were sometimes worn on the upper joints of fingers; tiny Roman rings were not necessarily intended for children, although children did wear jewellery. Brooches were worn by both sexes, most of them

Pair of dragonesque brooches with enamelled decoration; the strongly-curved pin would have held a thick fold of cloth. Roman Britain, 1st or 2nd century AD. From Faversham, Kent. Photograph © The Trustees of The British Museum.

functional items for fastening clothing, but some perhaps intended only for decoration, while earrings, necklaces and bracelets were feminine items, the latter often worn in pairs, and occasionally even in sets of four.

Coloured stone settings were important, and in some areas of the Roman Empire, such as Britain, they were a new introduction. The Roman world was highly bureaucratic, and it was not only the rich and powerful who needed to sign and seal documents. For sealing, a ring set with an engraved gem was a most suitable instrument. Ring stones were often colourful and decorative varieties of quartz, such as amethyst, jasper, carnelian and onyx, and the carefully chosen motifs engraved upon them usually showed deities or their attributes. By the late Roman period, some seal-rings began to be designed with Christian motifs, reflecting the rise of the new religion.

Those who could not afford gold or silver wore substitutes of base metal, such as bronze; a brightly polished bronze or iron ring, set with an engraved gemstone, could look impressive and attractive. Glass was extensively used in jewellery. It was used in the same way as hardstones for setting in rings, and in the form of beads and bangles. In the northern Empire, including Britain, the crafts of the metalworker and the glassworker were combined to produce highly sophisticated coloured enamelling on bronze. Other non-metallic substances that were admired were amber and jet. In Britain, although the earliest jet and amber jewellery dates back some four thousand years to the Bronze Age, it was in the Roman era that jet became especially popular for rings, bracelets, hairpins, necklaces and pendants, many of them superbly carved and finished.

Though archaeological finds enable us to understand and date a wide range of jewellery in non-precious materials, there are some which must have been used but rarely survive for us to find and study. Even the minute glass beads, 2 mm in diameter, that have been recovered in some modern excavations pose a problem: were they threaded into long single strings, sewn onto clothing, or worked into intricate woven patterns like some modern bead-work? The organic element, the thread that held them together, has decayed, so we cannot know. The poorer members of the population would have bought or made personal ornaments out of organic materials, and these seldom survive the centuries as metal and stone objects do. Roman bone bangles and hairpins are common finds, but those made of more perishable wood are uncommon, and if, as seems certain, necklaces were assembled from objects such as dried seeds, peas or lentils, we have no evidence to prove it. We can only guess at such items, but they may have been a common sight, perhaps brightly coloured using vegetable dyes. As in more recent periods, we tend to have more information about the possessions and tastes of the wealthy than about those of the humbler members of society.

Roman jewellery is a wide term, covering everything from the most exquisite and costly goldsmith's work to the modest home-made trinkets that have been current in all societies. It provides a window on the past that is of interest not only to archaeologists but to all historians of jewellery. The love of jewellery is a universal factor that enables us to identify closely with people who lived a long time ago.

FORTHCOMING SJH MEETING

28 SEPTEMBER

Italian Court Jewellers and the House Of Savoia

STEFANO PAPI

Stefano Papi was born in Rome, and completed his degree in Law at the University of Rome before deciding to pursue what was to become his lifelong interest in jewellery. He studied gemmology, first in Italy and then at the Gemological Institute of America in New York, and eventually joined the staff of Sotheby's, where, since 1992, he has been a Senior Director and a Senior Specialist for Europe.

He has published the following books: *Famous Jewellery Collectors* (1999) co-authored with his colleague Alexandra M. Rhodes; *Gioielli di Casa Savoia* (2002) with H.R.H. Princesse Maria Gabriella of Savoy; *Gioielli di Scena* (2003).

Details of the time and venue for the talk, as well as other forthcoming SJH meetings, are given on p. 48

SUMMER SALE DATES

Bonhams, London
Montpelier Street, London SW7 1HH
Jewellery: 21 July, 11 August, 9 and 29 September
t: 020 7393 3970 (www.bonhams.com)

Christie's, South Kensington
Jewellery: 13 July
Jewellery and rings: 14 September
Pawnbrokers unredeemed pledges: 24 September
t: 020 7752 3269 (www.christies.com)

Dreweatt Neate, Donnington, Newbury, Berkshire
Jewellery and Silver: 7 July
Priory sale with Jewellery and Silver: 7 September
t: 01635 553 553
(www.auctions.dreweatt-neate.co.uk)

Fellows & Sons, Birmingham
Second-hand Jewellery and Watches (by direction of Pawnbrokers nationwide): 8 and 22 July, 5 and 19 August, 9 and 23 September
Antique and Modern Jewellery: 15 July, 2 September
t: 0121 212 2131 (www.fellows.co.uk)

Gardiner Houlgate, The Bath Auction Rooms, Bath
Jewellery (unredeemed pawnbroker sales): 7 and 21 July, 14 and 18 August, 1, 15 and 29 September
t: 01225 812912
(e: auctions@gardiner-houlgate.co.uk)

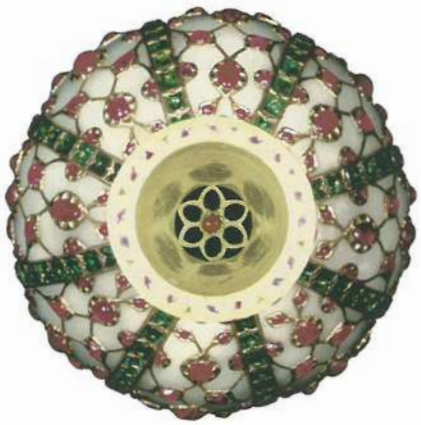
Hamptons, Godalming, Surrey
Jewellery: 21 July
t: 01483 423567
(www.hamptons.co.uk/fineart)

Lyon and Turnbull Auctioneers, 33 Broughton Place, Edinburgh
Fine Jewellery and Silver: 16 September
t: 0131 557 8844
(www.lyonandturnbull.com)

Sotheby's, New Bond Street, London
Jewellery: 29 June, 31 August (Gleneagles)
t: 020 7293 5000 (www.sothebys.com)

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

CLIVE OF INDIA'S TREASURE



The jade flask and (above) the ruby set inside the neck. Photograph © Christie's Images Ltd.

As reported in the March issue of *GJN*, a collection of Clive of India's Treasure was auctioned at Christie's, London, on 27 April. The rare collection of five Mughal treasures brought back from India by Robert Clive (1725-1774) sold for a total of £4.7 million.

The highlight of the sale was a splendid jewelled jade flask (pictured on the front cover of the March *GJN*) produced for the Mughal royal court in India in the 17th century, which sold for £2,917,250. The flask was once part of the Royal Collection at the Imperial Court in Delhi. It probably formed part of the immense treasure removed from the court of the Mughal Emperor Muhammad Shah by Nadir Shah, the invading Persian monarch who famously looted the Mughal royal treasury in 1739. The flask stands just over 25 cm high and is decorated by bands of emeralds and studded with ruby flowers, set in gold. Unique to this flask is a ruby that can be seen inside the neck, set in a grid. Another interesting feature of the flask is the claw-set stone mounted as a finial on the lid. According to Robert Holden, the fine art agent who was acting on behalf of the owners and was responsible for the sale, this setting is typically a European rather than a Mughal style, which indicates that a European jeweller could have been working in India in the 17th century.

FINE JEWELS

The sale 'Jewels: Antique, Period and Contemporary' to be held at Sotheby's, New Bond Street, on 29 June, will include a selection of exceptionally fine jewels. Of particular interest will be diamond-set brooches and a fine collection of parures and an emerald-set snake necklace.

Daniela Mascetti, a Director of Sotheby's, says: "It is increasingly difficult to find nice fresh antique jewels of good design and set with substantial stones. We are proud to be able to offer in this sale a selection that will no doubt satisfy the discerning collector or lover of decorative jewels alike."

THE NOVICE GEMMOLOGIST

GJN Editor Catherine Johns recounts the delights (and agonies) of studying for the Gem-A Foundation Certificate in Gemmology.

Although the natural sciences have long played a major part in archaeology and museum curatorship, like many archaeologists of my generation, my background is wholly in the humanities - history, art and languages. In my 35 years in the British Museum, I enjoyed the unique privilege of working alongside scientists and other professionals who enabled me to perceive things in different ways and to become aware of scientific approaches. My work on Roman jewellery led me to join the SJH over twenty years ago, and especially after I joined the editorial board of this newsletter, I began to meet and converse with gemmologists on a regular basis. Sometimes, amongst themselves, I would hear them use strange, arcane expressions, like 'birefringence', 'dichroism' and 'perfect cleavage'. Perfect cleavage? Were they really talking about gemstones?

I started to wonder why some garnets were 'almandine', and others were not, and I puzzled over the information that, though rubies are red and sapphires are blue, 'corundum' means both, and has many a hue. It was all very strange. I promised myself that, after I retired, when I should have lots of free time (hah!), I should look into the possibility of learning basic gemmology.

The opportunity came in the autumn of 2003, when, from September to December, I spent two evenings a week at Greville Street, studying under the expert tutelage of Peter Dwyer-Hickey. Thank you Peter! My fellow students were young, keen, clever and charming company and, unlike myself, most are going on to tackle the full diploma. I was the token Old Person, but nobody in the class could have enjoyed the foundation course more than I did. Walking up those four flights of stairs on Thursday and Friday evenings was undoubtedly good for me, too, and I looked forward to each session with real eagerness. It had been nearly fifty years since I last learned anything about the properties of light (though a lifelong passion for photography had at least given me some pragmatic experience, especially on polarization), and what I knew about atoms and crystal systems when I started could be written on, well, an atom.

The Gemmological Association's teaching materials are exceptionally well planned and structured. The fat file of Course Notes is beautifully presented and organized, and includes helpful guidance on learning and revision. It will remain a major reference resource for me from now on, together with the handy spiral-bound *Gem Observation Guide*. Students are provided with basic equipment – 10x loupe, spectroscope, stone cloth, tongs, and a penlight – but I also bought a couple of the student sets of stones and crystals to practise on at home, and I imagine that these would be indispensable for a student studying the course by correspondence, who would lack the regular opportunities for practical work that are available to those who take the classes in Greville Street. I already owned Cally Hall's superb little full-colour book *Gemstones*, and heartily recommend it.

The Christmas/New Year break was somewhat overshadowed by revision for the examination on 12 January. Would I identify the specimens correctly? Would I remember how to draw a diagram of a refractometer or a Verneuil furnace? Could I possibly get it into

Gem-A students marry

Many congratulations to Cédric and Tomoko Domec on their marriage in January in Forest, Belgium.

The couple met when they enrolled for the same Gemmology Diploma course at the Gem-A headquarters in London. Said Tomoko: "We really enjoyed our studies and often had a drink together afterwards – to speak about what we had learned during the day, of course!

"The classes enabled us to meet each other and to change our lives... both private and professional."

my head that an orthorhombic crystal has a minimum symmetry of three two-fold axes? It seemed doubtful. I had not sat a formal examination for over thirty years and the brain-cells of people in their sixties are dying off at a great rate. Two three-hour papers in one day, five questions on each paper, *no choices* – this is not an exam for the dilettante. It is serious stuff. On the fateful day, while having a sandwich and a restorative glass of wine at lunchtime in the Bleeding Heart Tavern, I remembered that in the morning session, I had scribbled my answer to one section of a question on my scrap paper, but had omitted to write it out in the answer book. Aargh! I had thrown away several marks already!

I tried to forget about the exam after 12 January and went on holiday to Egypt with my husband. I was so uncertain about my performance that I started brooding about whether I should re-sit the test in the summer if I had failed. Though for me the purpose of doing the course was simply to learn new and interesting things, and I had achieved that, I knew I should be dissatisfied if I hadn't made the grade. Happily, it wasn't necessary. Two months later, I received the news that I had passed. Joy was unconfined and champagne was consumed.

A moment of epiphany, which proved that I really had learnt something, came on the weekend before the exam, when I was revising hard and peering closely at every gem and crystal I could lay my hands on at home. One of these was an emerald-cut gem (well, sort of emerald-cut) set in a gold ring, which my father had bought in Ceylon (Sri Lanka) around 1944, when he was serving in the RAF.

The ring bought by my father in 1944 in Ceylon and the spectrum that enabled me to identify the stone as a yellow zircon.

My father, now 89, has never been sure what the stone is. It is in an open-backed setting, has a very high lustre, noticeable fire, and is a most attractive shade of warm golden yellow – about the colour of a Glenmorangie single malt whisky. When I advanced upon it, first with my lens, then with my spectroscope, I didn't really expect to identify it. Bearing in mind how subtle and fleeting those dark shadows can be – now you see them, now you don't – I was prepared for something vague, inconclusive and unknown to me. But a lovely spectrum appeared before my eyes, with a very sharp, clear black line in the red, and many more, though fainter, lines right across the colours. It looked exactly like one of the illustrations in my *Gem Observation Guide*! I had identified an unknown gem on my very own, and now knew that I had a ring set with a large yellow zircon! The thrill was out of all proportion to the actual achievement. I wore the ring when I took the exam.

Learning the basic theory of gemmology in the systematic and scientific way that it is taught by Gem-A is important. Though it is not easy for a non-scientist like myself, it is well worth the effort: it is serious, academic study upon which one can build. I have gained a whole new dimension of knowledge and enjoyed every minute of it, and I have more respect than ever for those who hold the full diploma of Gem-A. I recommend any student of jewellery who wants to augment their skills and learn a challenging and utterly fascinating subject to consider enrolling for the Foundation Course in Gemmology.

DESIGN AWARDS

The Scottish Branch of Gem-A have collaborated with the Edinburgh College of Art to present Design Awards for the three students judged to have produced the best designs in gem-set jewellery pieces during their second-year course work. The prizes awarded were a selection of gemstones.

The winner of the 2004 Award was Mie Miyakawa, and the runners up were Karen McMillan and Aki Nakayama. The prizes were presented during the Scottish Branch Conference and the students' designs were displayed.

CHERRY AMBER

Maggie Campbell Pedersen reports on three materials imitating cherry amber.

Natural red amber occurs in various localities. Most of the red ambers must be viewed by transmitted light to appear red, the exception being burmite from Myanmar. This amber can occur in an almost clear, burnt orange-red colour, though usually only in small pieces.

It is extremely rare to find natural red amber jewellery or carvings on the open market. Nevertheless, when visiting antiques shops or fairs, it is not uncommon to find jewellery labelled 'cherry amber'. The name always sets alarm bells ringing in my head, for it is a vague term and invariably used to describe something that is overpriced and is not amber, though the vendor may be unaware of these facts.

Pressed Baltic amber mounted in a ring (top) with detail of the stone (above).

Cast phenolic (plastic) beads imitating 'Cherry amber'.

Very recently I came across a string of pretty, red, faceted beads which I was allowed to borrow in order to examine them more thoroughly and to take a photograph. The beads did not appear to be new; they were of a bright, even colour, very transparent, did not have sharp facet edges, and had no inclusions. They were very obviously not natural amber, but were typical of plastic - more precisely of cast phenolic (known generically as 'Bakelite'), which was the preferred material used to imitate amber between about 1930-1960.

When dunked in salt water the beads sank immediately, but in this case the test cannot be treated as infallible, as there is a possibility that the weight of the thread used to string the beads had increased their specific gravity to a level higher than that of the salt water. Rubbed hard across the sleeve of my sweater, the beads emitted a faint smell of carbolic soap, adding weight to the identification of cast phenolic.

The antique dealer to whom the beads belonged had bought them in good faith, believing them to be rare amber. She was understandably disappointed to be told that they were probably worth only a quarter of the sum that she had paid for them.

There are plenty of these beads for sale on eBay – the internet auction house – where they also sell for quite high sums. Also available are opaque red beads called 'cherry copal amber', and dark red beads called 'Baltic cherry amber' – the latter being Baltic amber that has been heat-treated to a very dark hue.

A few weeks ago I bought a silver ring mounted with 'cherry amber', through eBay. This particular item came from Thailand and at about £7 it was worth the risk simply to find out the nature of the material being used. When my ring arrived it proved to be made of pressed, Baltic amber. The oxidation caused by the process of heating and welding the tiny chips and dust together had darkened the surface sufficiently to give a red glow to the material. The gem is red, it is a sort of amber, but the term 'cherry amber' still seems a misleading description.

However, much worse is the example set by a number of antique dealers in China who have in the recent past sold 'carvings' on eBay. These were described as rare, 18th-century amber, and were sold for less than £8.

Unable to resist the temptation to find out which material was being used I put in bids for, and subsequently bought, a couple of these carvings. Perhaps unsurprisingly, they proved to

be made of brand new, modern plastic.

The moulding in these 'carvings' is excellent and is almost three-dimensional in parts, suggesting that the material used is epoxy and that it is moulded in soft moulds that can be peeled off. It would appear that the main body of each item is of a pale coloured material, which is then dyed or painted red. There are some patchy areas in the red surface, and some of the colour can be removed by abrasion or the use of acetone.

There are many excellent items for sale on eBay (including good amber) and these 'amber carvings' were clearly newly manufactured fakes and, as such, were sold in a manner that breaches eBay's regulations. Several Chinese dealers have since disappeared from the site.

But 'cherry amber' sells. Treated Baltic amber is now given this name and, whilst that may be excusable as a colour description, antique dealers everywhere are also selling plastic 'cherry amber' in good faith. There are a lot of plastic imitations of amber around - antique dealers know this and the general public is often aware of the fact. It is ironic, therefore, that people are more easily duped by red plastic that barely resembles amber, simply because it is labelled 'cherry amber'.

Plastic imitations sold as 18th Century amber 'carvings'

Imitation amber 'carvings' (left) with detail of carving (below left) and detail of surface dye on 'carving' (below right).

A MEETING WITH 'BITE'

In early spring the Plastics Historical Society met at the British Dental Association's Museum in Wimpole Street, London.

Plastics have been used in dentistry since they were first invented, with vulcanite (dyed red) or celluloid used to make the palate section of dentures, set with porcelain teeth. It is said that the wearers became used to the taste of rubber in the former, and learnt not to get too close to a flame with the latter. Today acrylic is commonly used for both palate and teeth.

Of particular interest to the gemmologist is the use of organics in the dental profession. For instance, in the days when looks were more important than hygiene, the instruments of the wealthier dentists often had carved ivory or mother-of-pearl handles.

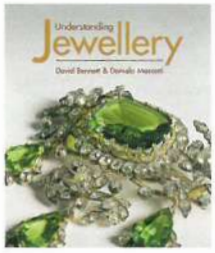
The list of materials used over the centuries for making dentures is quite terrifying, and includes stone, wood, shell, bone, horn, ivory and metals, as well as the early plastics. These materials could be carved in one piece to include the teeth and the palate, or a palate could be formed and set with teeth. The teeth might be carved of ivory or some other material, but it was also quite common to use second-hand human teeth. The material chosen depended upon the wealth of the wearer.

In the case of ivory, hippopotamus was the best ivory to use as it is stain resistant, but elephant ivory was also used. Most common, however, was walrus ivory.

Maggie Campbell Pedersen

BOOKSHELF

Understanding jewellery
Revised edition



David Bennett and Daniela Mascetti, 2003. Antique Collectors' Club Woodbridge.
pp 494 Illus. in colour. Hardcover
ISBN 1 85149 430 8. £45.00.

With most of the photographs showing jewellery that has passed through Sotheby's this large and heavy book has made a welcome reappearance; the original publication date was 1989 and a revised edition appeared in 1994. The text is said to be a (further) revision with corrections and additional material though the amount and nature of the revision is not specified: this is a pity as those holding copies of the original or the previous revision will have to look very carefully (and from memory) to try to find out exactly what is new before buying this edition.

None the less the immediate impression is favourable with really first-rate inclusion pictures credited to H A Hänni of SSEF (the letters are not expanded anywhere in the text so far as I could see but they stand for [English version] Swiss Foundation for Educational Research).

Appendix A, beginning oddly at page 46, gives a quick guide to the refractometer and its operation and lists the minerals on Mohs' scale of hardness. Diagrams would have been useful here and, due to the very considerable growth in information, textbooks have advanced well away from *Gems* (1983). However, few gemmologists will or should bother with this section nor with the following appendices which deal with pastes and treatments.

A note describing the frequent mis-naming of onyx misses the point: the writer has added to a confusion which I had not noticed up to now, since onyx has never been considered 'a variety of alabaster' (alabaster is a varietal name for certain types of gypsum). Perhaps the admittedly confusingly named 'onyx-marble' is what was meant.

Some other instances of loose language could be tidied up for the inevitable next edition: testing for amber for static electricity cannot have been 'age-old' if plastics were the materials to be guarded against; treated opal's colours can look very like the real thing and are recognizable by the accompanying 'photogravure' black spots rather by an eccentric play of colour.

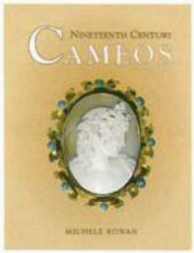
In general, then, the reader is advised to skip the appendices and turn to the main text which really is worth reading. Most but not all objects depicted are sized and their provenance given and in almost all instances the standard of reproduction is very high. The text once liberated from dangerous science and need for precision moves along happily and the typeface is very easy to read. In fact the general design is first-class. Each opening pleases the eye.

Despite the weight of scholarship hinted at by the blurb on the inside back dust-jacket, some journalese strays in-on a single page we are twice informed that something or other is "often referred to" and there are other examples of the sometimes breathless style often encountered in jewellery books. The bibliography is adequate.

Some catch-all jewellery books blast the reader with pictures and tell you little you don't know; this one though, despite some probably minor faults, is a very pleasing book indeed and the price I would consider reasonable.

Michael O'Donoghue

Nineteenth century cameos



Michele Rowan, 2004. Antique Collectors' Club, Woodbridge.
pp 134. Illus. in colour. Hardcover
ISBN 1 85149 393 X. £25.00.

Pleasant book enlightening an area that has been little illuminated in the past few years. The materials described are arranged in a rather jolly way, first by myths and then by materials. Before getting this far we have been introduced to cameo carving and to cameos as an art form in general. Each item illustrated (very well) carries a caption giving size, provenance and a next-door text outlining the fable illustrated. There is a useful bibliography and a brief note on purchasing cameos. I found this fun to read, with some memories of a classical education reaching the surface. This is good value for the price.

Michael O'Donoghue

HEAVEN ON EARTH: ART FROM ISLAMIC LANDS

Pair of bracelets. Mughal India, 17th century. Gold, enamel and precious stones. ©The State Hermitage Museum.

The Hermitage Rooms, Somerset House, Strand, London, until 22 August 2004. Catalogue £30.00. Tickets adults £5, children under 18 free.
www.hermitagerooms.org.uk

This exhibition presents a selection of fine pieces from The State Hermitage Museum and The Khalili Collection. The exhibition space in the Hermitage Rooms is rather cramped, but the items displayed have clearly been selected for their visual impact, each one deserving close examination, whatever your special interest. They include calligraphy, embroidered textiles, ceramics, enamelled glass and inlaid metalwork, including important pieces such as the 'Brobinsky' bucket, from the Hermitage. There are portrait miniatures depicting court costume jewellery (half of them were displayed until 9 June, and half from 9 June to 22 August), and a striking group of large 19th century portrait paintings showing western influence.

The highlights of the jewels include seven sumptuous pieces from the Mughal treasury, sent as a diplomatic gift to the Princess (later Empress) Elizabeth of Russia by Nadir Shah after he sacked Delhi in 1739. Rubies, emeralds, diamonds and enamelling cover every surface. A carved emerald and gold box made up of 103 matched emeralds from the period of Shah Jahan and a carved rock crystal lamp, c. 10th century with 16th century enamelled mounts, are also prime exhibits.

The exhibition is small, and includes a diversity of objects from a wide range of date and geographical origin, linked only by the description 'Islamic'. That said, it is a rare opportunity to view some very remarkable pieces in London.

Sue La Niece

THE ANDERSON COLLECTION OF ART NOUVEAU

Blackwell, The Arts & Crafts House, Bowness-on-Windermere, Cumbria, LA23 3JR. 22 July to 3 October 2004. t: 015394 46139.

Art Nouveau is often regarded as a continental style, contrasting with the products of the Arts and Crafts Movement in Great Britain. Blackwell's main summer exhibition of the Anderson Collection of Art Nouveau furniture and objects, on loan from the Sainsbury Centre for Visual Arts in Norwich, will explore the cross-currents between the two styles within the context of an Arts and Crafts house.

Hair ornament with an orchid, gold horn, glass and enamel, 1902, René Lalique. Anderson Collection of Art Nouveau. UEA, Norwich. Photo: Michael Brandon-Jones.

The collection is to go on display in its entirety at Blackwell, a house dating from the same era as many of the beautiful Art Nouveau items included in the exhibition. The collection demonstrates the quality of craftsmanship produced on the Continent and in Great Britain around the turn of the 19th century. On display will be glass by Lalique and Tiffany, posters by Alphonse Mucha, ceramics by Minton and Royal Doulton, furniture, jewellery, textiles, metalwork and design drawings.

'ALL THAT IS GOOD IN GEMMOLOGY'

Margaret Haddock reports on the Scottish Branch Conference

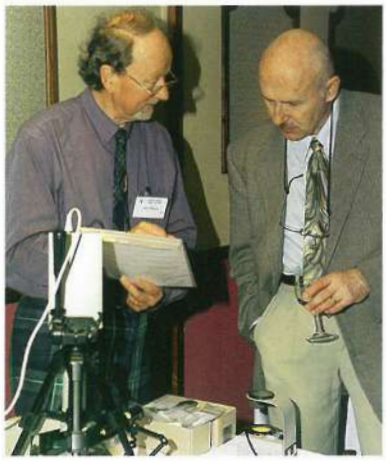
This year's Conference was held from 30 April to 3 May at the new venue of the Lovat Hotel in Perth. Delegates, who had travelled from far and wide for our conference, were soon in relaxed mood after a warm welcome and a cheering glass of wine.

Our Friday evening speaker was Chris Walton, retired Director of Technology and Research for the Worshipful Company Goldsmiths, who gave a very entertaining and informative talk on technical innovations, ideas and developments in goldsmithing in the 1980s and 1990s. He spoke of his time in the trade and how crafts people are a dying breed. Fewer people are coming into the industry as more companies are making use of cheap labour abroad in order to maintain profitability.

The programme on Saturday started with our keynote speaker John Koivula, Chief Research Gemmologist at the GIA's Gem Trade Laboratory and an internationally acclaimed gemmologist. His photomicrography revealed hallmarks of natural, synthetic and treated materials and he discussed how the identities of included minerals were resolved. He was adamant that in most cases the best tool was the proper use of observational techniques. John said: "It is now more vital than ever that a jeweller and gemmologist can understand the transformation of inclusions that takes place during treatment as this can make a huge difference to the value of a gemstone."

Our next speaker was Colin Towler who, after achieving a degree in metallurgy, worked for De Beers at the Finsch Diamond Mine in South Africa. With the use of a video, Colin talked us through the diamond mining and recovery processes at Finsch, illustrating the miles of tunnels and the huge scale of machinery involved. He then moved on to tell us of his experiences of alluvial diamond mining in politically turbulent Angola. Because of unofficial mining, the yield of diamonds was too low for economic recovery in many areas.

Delegates at the Scottish Branch Conference. Photo: Rudi Zoellner.



Scottish Branch President, Alan Hodgkinson (left) with keynote speaker John Koivula. Photo: Martin Donoghue.

Lunch followed and the chance to peruse items from some of the sponsors of the conference.

Elisabeth Strack, a Gem-A Tully Medallist and founder of the Gemmological Institute of Hamburg, was the first speaker in the afternoon. We were treated to a fascinating glimpse into the world of natural pearls. She took us through the history, species and locations of these rare gems. Time flew all too quickly but now we all know our *Pinctada radiata* from our *Pinctada maxima*.

A break for tea was followed by a talk from Peter Buckie, one of the UK's leading independent jewellery valuers and currently an official valuer for HM Customs & Excise. He took us through the legalities, purposes, reasons and limitations of valuations. He demonstrated how unreliable memory alone is when trying to describe an item of jewellery, by asking a member of the audience to hand him a piece of their jewellery and then describe it. Peter reminded us that every ring that goes astray has at least 1 carat of diamonds in it – until it is recovered!

The AGM of the Branch followed, when the committee was re-elected to serve another year. It was announced that the winner of the Pairman Trophy for the best Gem-A student in the 2003 Preliminary Gemmology Examination in Scotland was Katherine Moore. A presentation of flowers was made to Branch Secretary Catriona in appreciation of her dedication.

Marcus McCallum (left) discusses some of his new gems and minerals with John Koivula. Photo: Rudi Zoellner.

Time to throw on the glad rags and proceed to the Ceilidh/Dinner where the ladies were thrilled to find boxes of chocolates waiting for them on the table courtesy of Alistir Tait and the gentlemen delighted with miniature bottles of whisky from Colin Towler, courtesy of Allied Distillers.

Sunday morning saw us all up bright and sparkling and ready for the first talk of the day. John Koivula took us on a whirlwind journey through slide after slide of the inclusions he has discovered within gem material. Who can forget the finale of his slide show - a breathtaking view of the Himalayas produced from an inclusion in a Kashmir sapphire. We were all left in awe at the magic of nature and eagerly anticipating the next edition of the *Photoatlas*, edited by John and Professor Gübelin, due for publication later this year.

A talk by Ian Hammond followed on seal engraving. Ian, a fourth generation seal engraver, specializes in gemstone engraving. He talked about the artistic intricacies of his art, amazing us with the fine detail that he could achieve using his vast array of tools, most of which he had made by hand. He shared Chris Walton's concern about the state of craftsmanship in the UK today, and expressed the fear that there would be no one to take his place when he eventually retired.

Last, but certainly not least, was a talk by Branch President Alan Hodgkinson entitled 'Some fascinating gemstones'. Using stones from his own collection, he illustrated ways in which visual optics and inclusions could be used to differentiate between gems of similar appearance. He had so much more to tell and we wanted to learn, but once again we ran out of time.

During the lunch break the conference room was transformed for the session of demonstrations and displays that has become a popular feature of the conference. This year there was an emphasis on the gems and minerals of Scotland with displays by John Mackenzie, Lord Cromartie, who brought along agates from his private collection, Gordon Todd with a fine selection of gemstones and, with the aid of a video microscope, Brian Jackson showed agate inclusions. Alan Hodgkinson's display included the gemstones mentioned in his talk and a spectroscope imaged through a monitor which allowed perception far beyond the visible spectrum. Other demonstrations included jewellery making and gemstone faceting.

In the evening we made our way to a local restaurant, which had opened its doors exclusively for the Scottish Branch, for an excellent meal and more chat.

On Monday morning an enthusiastic band of delegates were ready and raring to go on the field trip to Ethiebeaton Quarry to collect agates. Thanks to the combined sledge hammer wielding skills of John Mackenzie, Brian Jackson and John McInnes, many rocks were broken and agates and cornelians were recovered. A second group of delegates visited Scone Palace.

The Conference had come to an end and all returned home feeling that they had experienced all that is good about gemmology. All were unanimous in their agreement that the conference could not have run without the boundless energy, commitment and organizational skills of our secretary Catriona McInnes.

Thank you…

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

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MIDLANDS BRANCH CONFERENCE

On a fine, sunny morning more than 20 delegates met at Barnt Green for our 2004 one-day Conference. After coffee we were welcomed by our Chairman, Gwyn Green, who outlined the programme for the day.

Our first speaker, Stephen Dale, had been with Wartski and Tessier, and is now a Director of Marks Antiques in London. He has specialized in Russian works of art and Fabergé for the last 19 years and helped secure loans to many exhibitions. Stephen focused on the different techniques used by Carl Fabergé and his skilled craftsmen and workmasters to produce the finest quality finish in metals, enamels and gem flower and animal carvings, the inspiration for many of these designs often came from nature. Stephen's extensive knowledge, experience and enthusiasm for his subject was obvious. As well as the pleasure of seeing slides of many fabulous items produced by the Fabergé workshops we had the opportunity to ask questions about any aspect of the work of this master craftsman.

After a delicious, leisurely lunch Roy Starkey, the well-known amateur mineralogist, Chairman of the British Micromount Society and prominent member of the Russell Society, took us on a mineralogical tour of Scotland indicating our route on a map. We started at the south west coast of Scotland at working quarries and then travelled across to Arran Isle. We visited Campsie Fells, Foss mine and Aberfeldy, and were treated to the magnificent views on the Isle of Skye and coastal locations that had to be reached by boat. For a keen, practical collector some of the rugged terrain had to be covered carrying a rucksack full of mineralogical specimens - but Roy had the knack of finding unusual specimens in the most inaccessible places! He told us about Braemar Castle which has the largest smoky quartz in the world. We then visited the Shetland Isles and Unst which is the home of puffins and arctic skua. Roy outlined the wide range of minerals and gems to be found in Scotland from calcite to hematite and feldspar to mica and many others, and some useful tips on planning a field trip. His enthusiasm and obvious enjoyment in his travels was very infectious.

The final speaker for the day was Michael O'Donoghue, whose talk was entitled 'Where are they now?'. Michael was Curator of Earth Sciences at the British Library until 1991 and is at present Lecturer in charge at London Metropolitan University. Michael has worked on and with minerals for more than 30 years specializing in gem minerals, their mining and testing.

We were treated to a short talk about the early growth of ruby and had a unique opportunity to examine under the microscope some of the many specimens in Michael's magnificent collection of rare man-made imitations.

The whole day was a great success with all those attending having the opportunity to question the experts, to examine rare and unusual specimens and enjoy excellent food in a relaxing and friendly atmosphere.

Elizabeth Gosling

BRANCH MEETINGS

MIDLANDS BRANCH

Bring and Buy and Team Quiz

The Bring and Buy held on 30 January proved very successful with a leisurely session over coffee exchanging books, stones and information. Stephen Alabaster was the question master for the quiz, with Gwyn Green keeping score.

The latest from SSEF

Professor Dr Henry Hänni gave a presentation to the Branch on 27 February, the first part of which dealt with synthetic diamonds, particularly those grown by chemical vapour deposition (CVD). He reported that synthetic diamonds showed distinctive patterns in short-wave UV light and that the stones were available in a variety of colours. He went on to describe the new mineral, pezzottaite, details of which were given in the April issue of *The Journal of Gemmology*.

The second part of Professor Hänni's presentation dealt with pearls, and began with a slide of the speaker diving and examining open shells that had been attacked by pollution.

He stated that pearls form not from the intrusion of sand grains but by mobile mantle cells separated from

the mantle by damage. Natural pearls are formed by an accidental formation in 'oysters' in salt waters and in pearl mussels in fresh waters. Professor Hänni spoke at length about cultured pearls, including those from Japan and Tahiti in the South Pacific. Members had the opportunity to study a selection of pearls provided by Professor Hänni.

The Hallmark

Chris Tarratt of George Tarratt, Leicester, was the speaker on 26 March. In an illustrated talk he covered the process of producing an article from a sheet of silver to the final engraving of the finished item. Items that would have been the silversmith's materials were illustrated, and how the experts would have sat or stood at their workbench depending on the job they were carrying out. Each person would be an expert in their own particular area, for example engraving.

Chris gave a fascinating account of the history and development of hallmarking through the ages, and also touched on the problems of forgeries. Following the talk, there was an opportunity to examine several pieces of silver, some forgeries and some genuine, by famous makers such as Matthew Boulton.

NORTH WEST BRANCH

Gems in space

On 18 February Alan Bowden discussed the unusual subject of meteorites. Many fascinating slides of carbonaceous chondrites were displayed and scientific questions were impressively answered.

Following the talk selected specimens were on hand for examination, including a meteorite from the planet Mars.

Cartier: the 20th century

Gem-A CEO Terry Davidson gave a talk on 17 March on the history of Cartier, which was colourfully told with amusing anecdotes from his many years in the trade. We were also fortunate to hear how the Eternal and Asprey diamond cuts were developed. The evening concluded with a question and answer session.

JUNE PUZZLE
Diced Carat

The Committee of the local branch of the Gamblers' Benevolent Society want to present the president with a gold dice, the 'spots' on the sides being small set gemstones. I've been commissioned to make it. I have plenty of suitable little gems in stock - diamonds that cost me £45 each, rubies at £30 each, sapphires at £25 each, emeralds at £18 each and amethysts at £5 each. I asked the Committee if they had any preferences about choice of gems. They said they didn't mind, just as long as each face was only set with one type of gem and that no two adjacent faces were set with the same type of gem. Since each face must be adjacent to four others, the treasurer reckoned that all five different gemstones were needed.

I thought it over and then quoted a price on the basis that I could decide which gems to use. What is the cost of the gemstones to me if I use the arrangement that best maximizes my profit (bearing in mind that the cheaper the stone, the more profit I make)?

Jack Ogden

Answer to Puzzle in the March issue – Royal Lineage

In Admirhistan ten gems have mystic numbers: diamond 10, ruby 9, sapphire 8, pearl 7, emerald 6, amethyst 5, aquamarine 4, garnet 3, citrine 2 and diffusion treated padparadscha 1. The question is how to arrange these ten gemstones in a 3 x 4 rectangle, using each stone just once, so that the lines of three along the top and bottom each add up to 18 and the same is true of the four in a line down each side. The only stipulation is that diamond must be top centre.

The only way to work this out is by elementary but fairly lengthy algebra or by trial and error (using a spreadsheet helps). You will know it when you get it right. One answer is shown but there is also a mirror image, etc.

Jack Ogden

Details of Summer/Autumn Branch meetings and contact details are given in What's On on p. 48.

GEMMOLOGICAL ASSOCIATION AND GEM TESTING LABORATORY OF GREAT BRITAIN

ANNUAL GEM-A CONFERENCE

Sunday 31 October
Kempton Park Racecourse, Sunbury-on-Thames, Middlesex
In conjunction with the Rock 'n' Gem Show

Speakers:
TOM CHATHAM - Keynote Speaker
DR RONALD L. BONEWITZ
ROSS N. CHAPMAN
ADRIAN LEVY
ELISABETH STRACK

Full details will be circulated with the July issue of The Journal of Gemmology

Midlands Branch

Friday meetings will be held at the Earth Sciences Building, University of Birmingham, Edgbaston. Admission £2 for a member. For details call 0121 445 5359.

Saturday 26 June. Barnt Green
Summer Supper Party

Midlands Gem Club

For details contact Paul Phillips on 02476 758940
email pp.bscfgadga@ntlworld.com

North East Branch

Meetings to be held at Gem-Ro Associates, Millshaw, Leeds. Admission £5.00 Gem-A members (£7.50 non-members). For further information call 0113 2070702.

Monday 26 July
ALAN HODGKINSON
Putting the 'Gee' back into gemmology

North West Branch

Meetings will be held at Church House, Hanover Street, Liverpool 1. For further details contact Deanna Brady on 0151 648 4266.

Wednesday 15 September
ALAN HODGKINSON
Emeralds

Wednesday 20 October
MARCUS McCALLUM
Pearls: The trade industry today

Wednesday 17 November
AGM and Social Evening

Scottish Branch

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

Tuesday 7 September
GUY CLUTTERBUCK
The colour stone business from a global perspective

Tuesday 12 October
NEIL CLARK
Inclusions in amber

Tuesday 16 November
ROGER KEY
Gemstones of Mozambique

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

South West Branch

Contact Richard Slater on 01635 553572.

Sunday 12 September
MAGGIE CAMPBELL PEDERSEN
An afternoon with organics

SOCIETY OF JEWELLERY HISTORIANS

Unless otherwise stated, all Society of Jewellery Historians' lectures are held at the Society of Antiquaries, Burlington House, London W1 and start at 6:00 p.m. 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. Further details of the September meeting are given on p. 36.

Tuesday 29 June.
SARAH NICHOLLS
Aluminium jewellery

Tuesday 28 September
STEFANO PAPI
Italian Court Jewellers and the House of Savoia

Tuesday 12 October.
VENETIA PORTER and SUSAN LA NIECE
Islamic jewellery from a 17th century ship in Salcombe Bay

Tuesday 30 November.
IOANNA LALAOUNIS
The Ilias Lalaounis Jewellery Museum collection

Levy Gems Co.

Diamonds and Fine Gemstones

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