

# Gem & Jewellery News

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## HISTORIC SCOTLAND

Scotland's Crown Jewels form the centrepiece of a new £1.5 million exhibition by Historic Scotland at Edinburgh Castle.

The Honours of the Kingdom are the oldest in Britain and the exhibition traces the history of the Scottish regalia from the dark ages to the present day using tableaux, music and models to tell the story.

At the heart of the permanent exhibition is the Crown Room, where the Regalia was placed in 1707, and

where it has been on display since its rediscovery by Walter Scott in 1818.

The Honours consist of the Crown of Scotland, Sceptre and Sword of State plus other precious jewels including the St Andrew Jewel of the Order of the Thistle, the Great George of the Order of the Garter and the Ruby Ring.

Prior to a recent investigation of the gemstones in the Crown and Sceptre no gemmological examination had taken place for over a hundred years.

## CONTENTS

<b>Around the trade</b>	<b>51</b>
<b>Education</b>	<b>53</b>
<b>Gleanings</b>	<b>55</b>
<b>Gems</b>	<b>57</b>
<b>Letters to the editors</b>	<b>61</b>
<b>What's on</b>	<b>64</b>



The Scottish Honours (Photo: Historic Scotland)

Pearls, quartzes, garnets and diamonds are set in the Crown and a rock crystal sphere and a single pearl in the Sceptre. Some of the pearls in the Crown have relatively recently been replaced. The replacements are known to be Scottish freshwater pearls from the River Tay. Others are alleged to be of Scottish origin but it is impossible to tell. The red faceted and carbuncle stones are almandine garnets. The orange faceted stones, recorded as 'jacinths', have been identified as hessonite garnets rather than zircon, the name 'jacinth' being synonymous with both species even as late as the twentieth century. Quartz gems are rock crystal and amethyst, though four of the rock crystal gems have been backed to simulate emerald. A fifth rock crystal gem is backed with gold material possibly to simulate the beryl variety heliodor or even the quartz variety citrine. Stones previously thought to be topaz are now known to be quartz variety rock crystal. The diamonds are mainly cut and polished cleavage fragments. One diamond is an unworked natural octahedron. The diamonds are symmetrically arranged but one position is occupied by a paste and another by a rock crystal.

B. Jackson

# Gem & Jewellery News

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## EDITORIAL

### A Pain in the Assay

Elsewhere in this issue I illustrate a simple 'Victorian' gold ring that happens to be a modern fake, hallmark included. We can probably assume that dozens, if not hundreds, of minor gold objects of this general type are gently slipping onto the market through small auctions or sold to dealers by 'private' sellers. The question is what do we do about it? The forging of hallmarks and the selling of objects with fake hallmarks are both very serious offences. I hope that none of our readers are guilty of the former, but it is not impossible that they could be inadvertently guilty of the latter, especially since such minor objects are now circulating. Clearly we need to try to identify and stop the manufacturers and those that knowingly distribute the fakes - this is a job for the police forces - but as importantly to the individual jeweller, we need to identify fakes to prevent what could be costly, if not exceedingly embarrassing, mistakes.

The bona fide hallmarking of gold and silver is enforced by the Assay Office which also polices the system; it must follow, however, that it has the responsibility to do what it can to minimize the abuses to that system. The Antique Plate Committee of the Worshipful Company of Goldsmiths was set up in 1939 because the Assay Office accepted that it had a secondary role to protect the public against the sale of spurious antique silver plate. This Committee, which can ponder over a questionable Paul de Lamerie bowl, can hardly be expected to turn its attention to the increasing number of minor little objects - like the ring shown - that could well flood the market. The problem needs to be discussed at length - there are various options including the use of spot checks on dealers' stocks - but as a start, I think that the Assay Office could play a greater role in educating jewellers about methods of detecting fake marks and should circulate up-to-date information about new forgery types as they appear on the market. It can be argued that supplying such information actually helps forgers to improve their skills but, to adapt a statement by an American art historian, I feel that the public has more to fear from jewellers' ignorance than from fakers' knowledge.

J.M.O.

## AROUND THE TRADE

In this column we endeavour to keep you informed of business matters affecting dealers from a trading perspective. We welcome views and questions from all readers handling gemstones and jewellery on a commercial basis.

### How to tell

You will see on page 52 the position adopted by the Laboratory concerning fissure filled emeralds. Dealers are being encouraged to put on their invoices words to the effect that most emeralds have fissures filled with colourless oils or other colourless resins, these being either natural or synthetic. This means that when such emeralds are sold, the seller can describe them as 'emeralds' without further qualification.

If, however, the fissure has been filled with a *coloured* substance then the stones must be described as 'treated emerald'. This is a position which CIBJO was working towards at the last Congress earlier this year, but time and other interests prevented a final resolution being adopted.

The situation with fissure-filled diamonds is far more clear cut. The World Diamond Congress, held in Antwerp earlier this year (see report on page 52, passed resolutions to the effect that any diamond that has fissures filled with any substance must be designated as 'treated' or 'enhanced' and all invoices, approbation notes, etc., must declare such diamonds as 'treated', 'clarity enhanced diamonds' or some such unambiguous phraseology. This is in line with CIBJO regulations for fissure-filled diamonds.

However, so far as the diamond

community is concerned, laser drilled diamonds\* need not be declared as such. They can be sold simply as 'diamonds'. This is at variance with the CIBJO rules where such diamonds have to be sold as 'treated' or 'altered diamonds'.

#### Established process

This ruling may appear to be somewhat odd, but the arguments run along the lines that lasering is now an old and established process, used to cut diamonds and remove internal flaws which form part of the polishing process. Further, because many very small stones are laser drilled, it would be practically impossible to distinguish such stones in a large parcel containing many diamonds.

A similar argument could be applied at a future date to fissure-filled diamonds. The process of fissure-filling is already being applied to very small stones which will be mixed into large parcels of untreated stones. Also, at some point in the future this process will have become 'old' and thus acceptable to the trade.

In the case of emeralds, the process of oiling was accepted by the trade, as the argument ran, because it was a universal process applied to *ALL* emeralds. Once we accepted this premise we were on the oily slope and resins have now slipped in on the back of oil with some people claiming that it is a process far better than oiling.

Again, one could predict that

\*Lasering is used to remove black inclusions (piques) inside a diamond leaving a hole or something which is less obvious to the eye than a black mark.

fissure-filling of diamonds will become acceptable at a future date, coming in through the tiny laser holes now permitted by the diamond trade.

So we have now ended up with a situation where we treat emeralds differently from diamonds and this is a fact of the trade at the present time.

I have tried to give and predict some of the arguments that have been and may be presented by various sections of the trade protecting their own interests.

We must now address the situation as to whether an uneducated customer will be told by a retailer, at the point of sale, that a stone in the article being sold is a treated stone.

It seems that the public must be educated about processes that may be used to enhance the appearance of gemstones before they enter the jewellery shop. After all, what 'real leather' articles are made from merely skinning an animal and cutting and using the leather without further treatments?

H.L.

### Disclosure

In 1856 the jeweller James Garrard was asked why he thought 'gold wares should be subjected to restrictions which are not placed on diamonds, or emeralds, or any precious stones?' He replied 'Either a thing is what it is represented to be or it is utterly false.'

## Emerald Gem Testing Report Terminology

*The following notice has been circulated to all GAGTL Laboratory members, and sets out how reports will be framed.*

It is common trade practice to improve the appearance of emerald by decreasing the visibility of fissures in the gemstone. This is accomplished by filling the fissures with colourless oils and, more recently, with resins. Much debate has taken place within the Laboratory, with members of the Trade and within CIBJO, on how such emeralds should be described and, following a meeting of the Trade Liaison

Committee on 2 July, the Gem Testing Laboratory is implementing the following report terminology:

1. Each report on a natural emerald that has not been treated in any way will describe the stone as a **NATURAL EMERALD**.

2. Each report on a natural emerald with fissures containing a colourless filling will describe the stone as a **NATURAL EMERALD** and will include at the end of the report the following explanatory paragraph: 'The emerald(s) described above show(s) evidence of filled

fissures. Most emeralds are treated in this way using colourless substances including oils and natural or artificial resins.'

3. Each report on a natural emerald with fissures containing a green or other-coloured filling will describe the stone as a **TREATED EMERALD**.

The Laboratory encourages all members to have information readily available on the types of treatment a gemstone may have undergone and submit that information to customers.

R.R.H.

## WORLD DIAMOND CONGRESS

### Enhancement of diamonds

At the World Diamond Congress held in Antwerp in June, treatments and fillings of diamonds were major topics of discussion at both the formal and informal sessions.

To outline the views of the CSO and De Beers on this aspect of current trade activity, we print below an extract from the speech delivered by Mr Julian Ogilvie Thompson, Chairman of De Beers Centenary A G and De Beers Consolidated Mines Ltd.

'A relatively new and important issue, which I know has formed part of your discussions this week, concerns the declaration of information about

enhancements, treatments or other artificial improvements to diamonds before a sale is made. Not surprisingly, we hold strong views on this subject, as Michael Grantham will have conveyed to you yesterday. To withhold information about these "improvements" would run contrary to ethical trading standards and betray the principle of "Mazal U'Bracha". In the diamond business, especially, there must be confidence and trust at every stage. If the consumer has reason to believe that he has been misled by one individual, his confidence in the trade as a whole is shattered.

'Further commercial and technical challenges will emerge, both within and outside the trade. All of us will have to work together to meet them; the CSO and De Beers cannot do it on their own. Rapid communication of information and co-operation throughout the pipeline are fundamental. The role of the

international network of bourses and clubs is vital. Working in harmony with the World Federation and the Manufacturers' Association, you will need not only to regulate and arbitrate, but to be aware of, and alert others to, the problems as they arise.

'Technological progress always has its negative as well as its positive aspects. One of the most positive is the opportunity it offers - I hope more so in the future than in the past - to make manufacturing a more attractive occupation, drawing to it, and retaining, skilled people who see in the diamond industry a satisfying, rewarding career. There will have to be other changes, as we know - in human attitudes and labour laws - but the most dynamic will be wrought by technology. I am certain that, well before the youngsters of today retire, the workplace will be unrecognizable from what it is today.'

R.R.H.

# EDUCATION

## GAGTL Gem Tutorial Centre Some events for 1993

**22-23 September Synthetics and enhancements today**

Are you aware of the various treated and synthetic materials that are likely to be masquerading alongside the gemstone you are buying and selling? Whether you are valuing, repairing or dealing, can you afford to miss these two days of investigation?

*Price £223.25 (including lunch)*

**29 September Identification of Beads and Necklaces**

How often do you want to identify a material with a curved surface or an opaque substance that you cannot place on the refractometer? Then this is the course for you. Spend a day studying a variety of beads and other items, discovering how to distinguish one thing from another.

*Price only £35.25 for the day (including lunch)*

**30 September DIY Laboratory**

Spend a day finding out about the basic gem testing instruments. You will be looking at the principles by which these instruments work and the results you should obtain. You will also be constructing some instruments of your own.

*Price £111.63 (includes materials and lunch)*

**7 October Enquire Within: Emeralds**

A day looking at all aspects of emerald -natural, treated, synthetic and imitation

*Price £111.63 (including lunch)*

**12-14 October Preliminary Workshop**

A day of practical tuition for Preliminary students and anyone who needs a start with instruments, stones and crystals; student discounts.

*Price £44.65; GAGTL students £31.73 (including lunch)*

**10 November Enquire Within: Jade**

A day of looking at and handling jadeite, nephrite and the many imitations of jade, both natural and manmade.

*Price £111.63 (including lunch)*

**23 November Photographing Gemstones**

Spend a day in the company of Frank Greenaway, one of the leading photographers of gemstones - a rare opportunity for you to enhance your photography.

*Price £111.63 (including materials and lunch)*

**24 November An Evening for the Gemmological Enthusiast**

If you enjoy delving into colour and the optical effects that make gemstones behave in the way that they do, then here is an opportunity to experience a variety of unusual and essential gemmological techniques presented by Dr Jamie Nelson.

Benefit from his experience, pick up valuable tips and enjoy the spectacle.

*Price only £4.00*

**ALL PRICES INCLUDE VAT AT 17.5%**

## New gem diamond evening course

The full Gem Diamond Diploma course will be offered as an evening course commencing on 14 October 1993.

This new course, to be held on Thursday evenings 6.15 p.m. to 8.45 p.m., offers ideal conditions for gaining the Diploma.

Autumn term:

14 October - 16 December  
(10 evenings)

Winter term:

13 January - 24 March  
(11 evenings)

Spring term:

14 April - 9 June (9 evenings)

The total price, which includes the practical and theory examinations, two-volume course notes and the evening tutoring fee, is £475.00 including VAT.

The examinations will take place on Wednesday 15 June 1994.

The Syllabus and course Application Form are available from Doug Garrod at the GAGTL Education Office on : 071-404 3334; fax: 071-404 8843

**Please book early -  
places are limited**

## New Evening Course

### Precious stones and crystals

A new ten-evening course, 'Precious Stones and Crystals', will start at the GAGTL Gem Tutorial Centre at the end of September.

Each Tuesday until 30

November Ian Mercer will introduce a different aspect of the subject. Enrolment (£50.00 for the complete course) is possible at the end of September if places are still available. Apply direct to Alison Sutton at University of London, Centre for Extra-Mural Studies, 26 Russell Square, London WC1B 5DQ.

You may also call in there during office hours, or ring Alison on 071-631 6654 to ask for an application form and further information, or to pay by credit card.

## Weekend diamond grading course

2-3 October 1993

Following its success in previous years, GAGTL is pleased to announce its next weekend diamond grading course.

The course concentrates on the practical aspects of clarity and colour grading of polished diamonds, with 10x lens, microscope and colour comparison stone techniques being covered. Proportions, symmetry and polish will be analyzed. Grading of mounted diamonds in jewellery, with its limitations, will be demonstrated.

Distinguishing diamond from its simulants and the identification of clarity enhancements will also be taught.

Of value to retailers, valuers and all involved in the trading of diamonds, the course is taught by expert Laboratory staff at its Greville Street address.

*Price £246.75 including VAT for the two days*

Contact: Eric Emms at the Gem Testing Laboratory

*Please enquire for dates of future courses*

## INTERNATIONAL FACET COMPETITION

### Australia - Easter 1994

This competition is held every two years at Easter in Australia and is organized by the Australian Faceter's Guild. The team event is between USA and Australia with five faceters from each country competing for the Challenge Cup. The individual competition is open to any interested faceter and consists of four gemstones cut to named designs and are compulsory to all competitors. The designs are considered to be of a nature to test the abilities of the entrants. They are:

- a. Eagle-Eye Cut by F.W. Van Sant (cubic zirconia)
- b. Rectangle Cushion by R. Long (beryl)
- c. Checkerboard by S. Word (synthetic corundum)
- d. Square Cushion by E.A. Williams (topaz)

Closing date for entry forms is 31 October 1993. Gemstones must be mailed by 31st January 1994. Schedules, designs and entry forms can be obtained from Mr J. Gemmell, FGA, 187 Woodland Crescent, Kelloe, Durham DH6 4NA.

## Falling Standards

Over the last three issues of *GJN* we have traced the lowering of the British gold standards to 18 carat in 1798 and to 15, 12 and 9 carat in 1854. One of the main surprises is the lack of apparent interest this caused at the time. I can find no evidence that the general population paid much attention at all - certainly the general press does little more than note the passing of the relevant legislation in Parliament.

In 1855, just after 9 carat had been introduced, various aspects were discussed by the Parliamentary Select Committee on Silver and Gold Wares and witnesses were interviewed. Two Liverpool watch-case makers were asked if the lower standard had increased the demand for English watch-cases - one replied 'not in our experience', and added that, if anything, trade had actually suffered. The second watch-case maker was happier because the lower standard increased demand a little, 'but not so much as I expected'. The pressure for a reduction in gold purity standards largely came from the watch-case industry, so it is perhaps not surprising that these case makers were uncertain whether the lower standards applied to all gold wares or just watch-cases. When the jeweller James Garrard was asked if the lower standard had a beneficial effect on the English gold trade in general, he answered 'I should think not'.

There were three impediments - public ignorance or disinterest,

the actual scope of the hallmarking laws and fraud by goldsmiths. The first of these was summed up by James Garrard when asked if the general public, those who actually purchased gold and silver wares, knew what the hallmark was - he replied 'I think they have a crude idea (I do not think they know exactly) that it has a certain value'.

As for the scope of the hallmarking laws, it is perhaps not now generally realized that, apart from wedding rings, jewellery was largely excluded. Way back in the 1730s it was noted that although gold plate, vessels and the like had to be of 22 carat, this did not extend to 'any jewellers' works, that is to say, any gold or silver wherein any jewels or other stones are or shall be set (other than mourning rings)'. The list of excluded categories extended to almost every imaginable category of jewellers' work from snuff-box rims to chains, from seals to buttons, plus the blanket category of objects so 'richly engraved or chased' that they could not be marked without damage.

Legislation in 1836 repeated that small goldwork and jewel-set or heavily ornamented pieces did not have to be marked. In 1855, following the introduction of 15, 12 and 9 carat, it was confirmed that wedding rings needed to be marked but, as before, many other categories did not, a fact also noted by James Garrard. This means that right into relatively recent times substandard gold objects were freely manufactured and sold in Britain. G.E. Gee in his book *Gold Alloys*, published in London in 1929, says that 8 and

7.5 carat gold were called 'bright gold' and notes 'public demand requires just now a cheap article, and it has it by buying a mixture consisting of a value only according to the proportion of gold it contains, and as the articles bear no official stamp of genuineness it is difficult for the purchaser to ascertain the exact standard'. 7 carat was 'used for cheap jewellery in Birmingham in the manufacture of such articles as lockets, pendants, sovereign purses, studs, bracelets, pins, brooches, sleeve-links, cheap rings and numerous other articles of an inexpensive nature', and even 6 carat provided 'the great masses of the people with a gold article'.

Fraud had been a problem since the earliest times - indeed hallmarking was introduced to help prevent it. There is ample documentary evidence for the continuing sale of substandard watch-cases and wedding rings (both of which needed to be marked), while the worse crime of faking hallmarks seemed little curtailed by the punishments threatened. In the 1770s those found guilty of faking or transposing hallmarks were liable to be transported to the colonies or plantations in America for 14 years. I have a sneaking suspicion that this might actually have led to a new generation of fakers in America. One witness to the 1855 Select Committee complained that in America 'They forge our hallmarks upon them [watch-cases], and you can have a case marked in America, of any standard you like, 18 if you please, with the London hallmark or the Chester hallmark; whatever

standard it is, you may have them to order in America'.

Some things have not really changed. Today jewellers and auction houses often have to sell gold objects as 'metal' because they are not hallmarked in accordance with the law. Over two hundred years ago some English goldsmiths made objects

of both 18 carat and 20 carat gold (rather than the 22 carat standard then in force) but sold them as 'metal'. Some 20 carat objects made in Britain were exported to France described as 'metal' and then resold as being of the French Standard.

J.M.O.

## FOOLS' GOLD

The aim of this column is to look at fakes and forgeries of jewellery of all periods. Generally 'fake goldwork' brings to mind sumptuous copies of ancient treasures or something like Vaster's copies of Renaissance work. Less flashy but perhaps even more insidious are the fakes of more mundane and far less valuable objects. It has often been pointed out that so far as fakes go, supply will always equal demand and now forgers are happily

Fig. 1 A fake Victorian ruby and gold ring

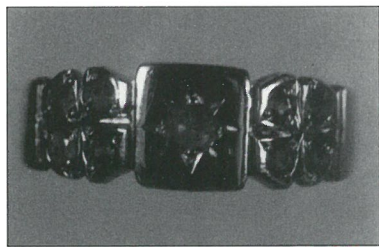
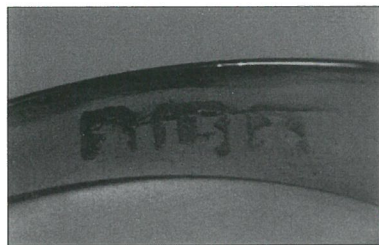


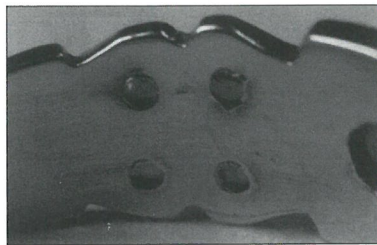
Fig. 2 Detail of 'hallmark' cast in situ with the ring. The horizontal ridge across the mark is a casting flaw.



copying anything from minor ancient gold objects to relatively insignificant ornaments in late nineteenth and early twentieth century styles. Figure 1 shows just one simple example, a ruby-set ring of basic form that can be found in retail establishments around Britain. On first glance one would assume that it is a typical Victorian ornament and the indistinct hallmark says that it is 15 carat gold (Fig. 2). In fact the ring is a modern fake. The whole ring including the hallmark is cast, there is a total lack of wear and, to cap it all, analysis of the gold shows that is actually just 14 carat - far easier for the faker to obtain today than 15 carat.

In its pristine condition this ring is relatively easy to spot, but

Fig. 3 Detail of back of setting showing the sharp edges still remaining on the drilled holes.



## Carat cake?

The ancient's abilities with precious metals are often astounding. One nineteenth century Egyptologist, Gardner Wilkinson, in his great work *The Ancient Egyptians*, cites the case of Moses, undoubtedly trained in Egypt, who could not only burn the golden calf but, most remarkably, was able to reduce it to a powder so that he could force the Children of Israel to eat it. This art, as he earnestly remarks, is an operation which 'is known by all who work in metals to be very difficult'.

J.M.O.

if it had been sold by an unwary jeweller and then worn for a length of time it would be far harder to identify. This is, I am sure, just one of many such rings to be found on the market today and it is quite possible that such simple rings, and presumably earrings and other ornaments, are being produced by the hundreds and then offered to jewellers or placed in auctions. I am not sure where such fakes are being made - Portugal has been mentioned but I have no proof of this - but their inexpensive nature and historical insignificance should not mean that we can ignore them. Jewellers dealing with all categories of jewellery from great treasures to simple day-to-day ornaments need to keep on their toes.

J.M.O.



## Dyed chrysoberyl

News of dyed chrysoberyl has come recently from K.L. Krishnamoorthy, a geologist trained in gemmology and working in Kerala, South India. He reports that the rough chrysoberyl is dyed with a reddish-violet ink used in stamp pads and the resulting material is sold to the unwary as alexandrite. The rough is pale green in daylight but in tungsten light the surface is pale red or pink. There is no colour-change in depth and no chromium spectrum, but under crossed filters the surface shows a dull red. The dye does not dissolve in the common organic solvents and we await arrival of material in London to carry out more extensive tests.

Mr Krishnamoorthy also reports that consideration is now being given by the Government of India to simplifying the mining laws so that power is vested in each State. With simpler laws and easier processing, perhaps we will see increased activity in the Indian gem economy with more species and better qualities resulting.

R.R.H.

## Miscellany

The mineral **tausonite** (strontium titanate) is illustrated in *Lapis* 18(4) page 14, 1993. The crystal shows as an octahedron of 1mm across. The paper deals with charoite and associated minerals from Siberia. During the 1970s this spectacular purple ornamental material had considerable vogue and it is still available. Collectors

will look for pieces of a good deep colour; included orange crystals of tinaksite will be a bonus (and push up the price). Tinaksite may form rosettes of acicular crystals - one is shown in the *Lapis* paper. Its composition is  $K_2Na(Ca,Mn)_2TiSi_7O_{19}(OH)$  and readers are asked to guess where the name comes from.

I am waiting to examine a specimen of the gem-quality **spessartine** found in Africa. *Gems and Gemology*, Spring 1993, illustrates the material and reports that its location is 'Namibia' or 'Kunene River' which borders Namibia and Angola. At one mineral show, specimens were labelled 'Marienfluss', said to be a town in northern Namibia. I am in touch with the suppliers in Israel and hope to be able to say more later. The name 'hollandine' has been suggested but, as readers will know, this kind of trade name causes nothing but confusion.

The classic German **topaz** locality of Schneckenstein is again producing gem-quality material. I have examined a very attractive yellow cut stone and those interested in crystals can see fine examples in the Natural History Museum, London. The area is part of the Voigtland, Saxony.

Among synthetics seen recently is the lead tungstate **stolzite** - yellow, soft and with a high dispersion. Natural stolzite (which is dimorphous with raspite) has H 2.5-3, SG 7.9-8.3 and RI 2.27, 2.19. The natural mineral is tetragonal, small bright orange cut stones being reported from Broken Hill, New South Wales. The synthetic material makes an attractive faceted stone.

**Chatoyant golden beryl** examined recently made a most

attractive large cabochon with fine deep golden colour. A recent report in *Gems & Gemology* suggested that some chatoyant golden beryl has been found to be radioactive, presumably from irradiation.

The mineral **triphylite**, a lithium-iron phosphate, occasionally provides greenish or orange-brown cut stones mostly, if not invariably, from Brazilian material. I am obliged to Tony French, FGA, for a sight of some attractive specimens.

Some months ago I was delighted to find a strong reddish-orange fluorescence in a colourless cut **benitoite**. This has been reported but is rarely seen since the supply of benitoite is small and colourless material not usually cut. I know of no other example of a colourless stone fluorescing this colour.

Also with a strong fluorescence, yellow this time, is the mineral **phosgenite**, rarely cut and found in Sardinia. The body colour of the stone I saw was a pale, bright yellow. Collectors know the fine crystals which grace many museums.

I recently mentioned carletonite and serandite, both rare gemstones from Mont Saint Hilaire, Quebec, Canada. The mineral **nepheline** also comes from this area and a few cut stones exist; the one I saw was a pale pink and pleasantly bright.

Lastly, the bright green mineral **gasperte** (nickel-magnesium-iron carbonate, forming a series with magnesite and a member of the calcite group). This has been cut into very beautiful cabochons, the source being Australia.

M.O'D.

## A Victorian jeweller

*Streeter of Bond Street* is a long overdue biography of E.W. Streeter, one of the leading Victorian jewellers, by his great-grandson Patrick Streeter. This sumptuously illustrated (in both colour and monochrome) book vividly tells the story of Streeter's extremely varied career. His trading in the West End and his involvement in expeditions in search of pearls in the Far East and Australia, rubies in Burma, sapphires in Montana and emeralds in Egypt, are all described. A wealth of fascinating detail is included about his safes, law suits, famous stones that he handled and many other aspects of his activities; all of which bring to life the jeweller's trade in Victorian times.

The museum of gems at Streeter's.

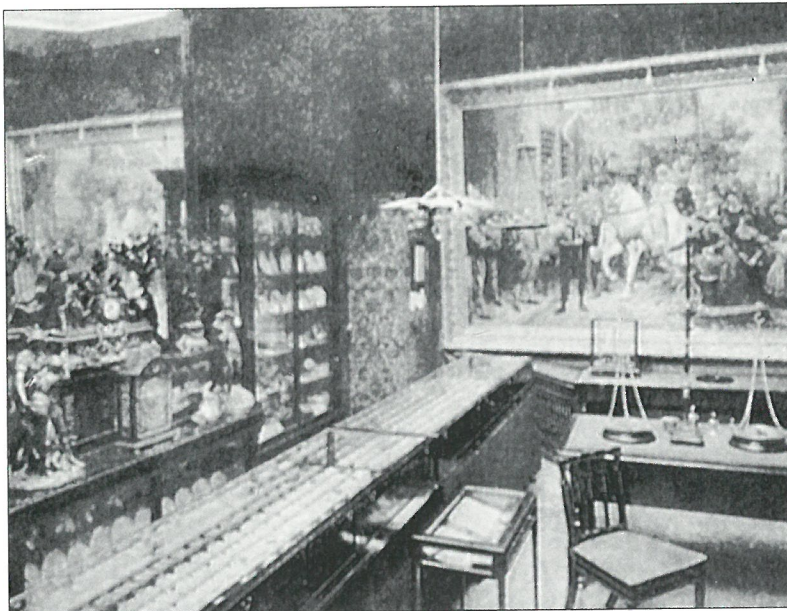
His museum at Bond Street was a great attraction for customers. The 10th edition of the catalogue invited 'those who take an interest in gems to visit the Museum in the atelier at New Bond Street, where specimens of every known gem, both in the rough and cut, may be seen. From this collection, unique in its kind, purchasers may choose their own stones and have them set under their personal direction and to their own design. Collections of Precious Stones and Gems, in the rough or cut, arranged to order from £5 to £5000'. Also mentioned were 150 sapphires, each of a distinct colour, and one case contained models of many of the great diamonds of the world, cut in either crystal or glass and tinted to match the originals. Between 1841 and 1905 the museum also displayed the Agra diamond. The historic Indian light

pink stone was bought by Streeter for £14,000 and was last sold at auction in 1990 for hammer price of £3,600,000.

The book contains 174 pages including bibliography and index in a soft cover, and is available from GAGTL for £18.00.

Also still available is an excellent facsimile of *Streeter's 60th Catalogue* (c. 1885) with illustrations and descriptions of jewellery, watches and silver. Also available is *The Content Cameos* by Martin Henig. The Content Family Collection contains what appears to be the largest assemblage of ancient cameos outside the major European museums and is on display in the Ashmolean Museum, Oxford. Every stone in a holding of over two hundred is discussed and there are 228 monochrome and 93 colour illustrations. The book is hardbound and costs £52.00.

N.B. Israel



We looked at George Poinar's *Life in amber* in the last issue of *GJN*. Since then Dr Poinar has become famous in the context of *Jurassic Park* (DNA from amber)!

The 'Fred Ward' series of gem books continues with *Emerald*, published by Gem Book Publishers, 7106 Saunders Court, Bethesda MD 20817, USA, and seriously recommended by your reviewer. Get all this set as they come out (we are promised *Diamonds, Pearl and Jade*).

M.O'D.

## Collectors' Books

One of the classic surveys to figure an important gem mineral is Richard H. Jahns and Lauren A. Wright's *Gem- and lithium-bearing pegmatites of the Pala district, San Diego County, California*. The gem mineral is of course tourmaline, though morganite, spodumene and aquamarine are also described; all are illustrated in colour.

The paper is *Special report 7-A* of the Division of Mines, Dept of Natural Resources of the State of California and was published in 1951. There are 72 pages and maps in a pocket at the end. Full descriptions are given of the Pala mines, including the Tourmaline King, Tourmaline Queen and Pala Chief mines with many notes on other occurrences of pegmatites in this area of southern California. This is a very rare and desirable paper and should be purchased at once if found!

The same area is covered by Field trip guidebook, *San Diego County*, issued to participants in the 57th Annual Meeting, Cordilleran Section of the Geological Society of America in 1951. Though reproduced from typewriting the field guide takes you to the locations of importance and gives running notes on both geology and mineralogy; locations include the Pala district and the pegmatites of Mesa Grande which cover the Himalaya beryl and tourmaline mine among others. Again a rare piece with information virtually unobtainable elsewhere.

M.O'D.

## FROM OUR CONTEMPORARIES

Useful notes on gem materials have been noted in:

*Schweizer Strahler*. Gem minerals of Switzerland in three parts (vol. 9, parts 8-10, 1992-93).

*Jewelers' Circular-Keystone*, Montana sapphires (September 1992), opal from Oregon (October 1992).

*Lapis*. Charoite, 18(4): colour zoning in fluorite 18(6), 1993

*Zeitschrift der Deutschen Gemmologischen Gesellschaft*. Alexandrite locations in Brazil; prehistoric glass from Sri Lanka; inclusions in Cu-elbaite [tourmaline]; natrolite from Mont St Hilaire, Quebec, Canada: colour change cobaltian spinel 42, (1), 1993

*Gemología* [Asociación Española de Gemología]. Gems

from the Viennese Imperial treasure; refractive index (34 (89) [1992 but issue undated]).

*South African Gemmologist*. Assembled imitations of emerald; polyhedra and gemmology (7(1) 1993).

*Newsletter of the Friends of Jade*. Useful addresses of book dealers; book reviews (Summer 1993).

*Revue de gemmologie*. Polynesian pearls; Vietnam ruby (114, 1993).

*Gems & Gemology*. Queensland boulder opal; update on diffusion-treated corundum; gem beryl from Finland; De Beers near colourless-to-blue gem quality synthetic diamonds (Spring 1993).

M.O'D.

## SALEROOM NOTES

At Sotheby's New York sale on 19-20 April 1993 a pear-shaped diamond of 66.29ct went for £3,061,125. and a magnificent cultured pearl necklace with diamonds for £713,131. This item is among the top five cultured pearl necklaces ever to be sold at auction. At the Sotheby's Geneva sale on 26 May an emerald-cut diamond of 53.88ct, D colour and internally flawless made £2,391,111 and a pear-shaped fancy blue diamond of 11.47ct £2,348,222. An oval ruby weighing 16.51ct sold for £1,957,111. This stone was certified as Burma in origin.

In St Moritz on 19-20 February a Van Cleef and Arpels pearl, emerald, ruby and diamond necklace with matching pendant earclips went for £402,073 and a pear-shaped diamond of 30.07ct for £467,972.

At Sotheby's fine jewels sale in London on 1 July £54,300 was paid for a 5.79ct unmounted diamond of F colour and VS1 clarity. A peridot and diamond ring, the peridot weighing 37.79ct, went for £5,750 and a ring set with a cabochon sapphire for £12,650. Two unmounted tanzanites weighting 11.43ct and 11.93ct fetched £782.

M.O'D.

## FORTHCOMING EVENTS

### Phoebe Anna Traquair

6 August - 7 November 1993

Scottish National Portrait Gallery, 1 Queen Street, Edinburgh.

Phoebe Anna Traquair (1852-1936) was Scotland's leading exponent of the Arts and Crafts movement. One of the most versatile artists of her generation, Traquair believed in the equal value of the fine and decorative arts. This exhibition brings together more than 150 of her most accomplished works, including paintings, embroideries, illuminated manuscripts, jewellery and decorative enamelwork. For more information on Traquair see *GJN* 1, 3, p. 40.

### A Sparkling Age: Seventeenth Century Diamond Jewellery

Diamant Museum, Antwerp, until 3 October 1993.

The City of Antwerp played a major role in the development of diamond jewellery in the seventeenth century. This exhibition brings together 107 jewels including specific pieces from Budapest, Vienna, Stuttgart, Munich, Lugano, Lisbon, London, Paris and Amsterdam. The

exhibition is accompanied by a fully illustrated catalogue, edited by Jan Walgrave, with essays on diamond cuts and engraved prints for jewels.

### Conference: The Art of the Greek Goldsmith

4-6 October 1994 London

A major international conference jointly organized by the Society of Jewellery Historians and the Department of Greek and Roman Antiquities at the British Museum to coincide with the proposed Greek Gold Exhibition will be held at the British Museum in 1994. The topics will cover the materials, techniques and art historical development of Greek gold jewellery and related precious metal objects during the first millennium BC. Preliminary details will be circulated to members of the Society of Jewellery Historians shortly. Others wishing to be on the mailing list for information should write to: Dr Jack Ogden, Cambridge Centre for Precious Metal Research, PO Box 391, Cambridge CB5 8XE, UK. Fax 0223 67250.

### SPECIAL LONDON LECTURE

Professor I. Sunagawa

*The distinction of natural from synthetic diamonds*

To be held on Monday 18 October 1993 at 6.30 - 8.00pm.  
at the GAGTL Gem Tutorial Centre

The charge will be £3.50 for GAGTL members (£7.00 member and guest, £5.00 non-member). Admission by ticket only available from GAGTL.

## FACET CUTTERS

Two members of the Sussex Mineral and Lapidary Society have started a forum for cutters, primarily in the UK, to exchange information, ideas and problems involved with gem faceting. Ken Fitch and Jim Gemmell have begun to circulate a folder to which members can contribute and pass on. This would then enable members to contact each other. Membership, open to anyone interested in the craft of faceting, is expected to be mainly the hobby and custom cutter and anyone in the UK wishing to learn.

Enquiries should be addressed to Mr K.S. Fitch, 17 Dukes Road, Lindfield, Haywards Heath, West Sussex RH16 2JH.

## American Grain

In Jochem Wolters' splendid book *Die Granulation* (Munich, 1983) the section on twentieth century English replicators of the ancient art includes John Heins - a name which has puzzled some jewellery historians. Wolters appears to have found Heins' name in the 1973 *Special Report* (no. 22) of the Worshipful Company of Goldsmiths entitled *A Review of the History and*

*Technique of Granulation* which provides the unreferenced statement; 'Earlier this century, John Heins found that gold could be heated to a point at which the surface melted, and by using pure gold, he was able to secure small granules to a background in this way'.

In fact John P. Heins was American not British, and was a metal craft teacher in the Department of Fine Arts of Columbia University. He worked alongside Caroline Ransom Williams in c. 1920-1922 studying the technical aspects of the Egyptian gold jewellery then in the collections of the New York Historical Society. His views and findings, including his experiments in granulation, are discussed at length in Williams' fine catalogue of the collection published in New York in 1924. Heins records how he used gum tragacanth to hold the grains in place, but no solder. Heins and Williams were pioneers in the study of many aspects of ancient goldsmithing and the depth of technical and art historical coverage in the catalogue was a milestone then and could be used as a model by many more cataloguers even today. Heins thus takes his place as an early American replicator of granulation, predating the published research of British colleagues such as W. Blackband and H.A.P. Littledale.

If American readers have any more information on John Heins I would be delighted to hear from them.

J.M.O.

## LETTERS TO THE EDITORS

### The Disclosure Debate

Dear Sirs

Let me begin by expressing that I have enjoyed several of the short selections presented in your quarterly bulletin, since the *GJN* began publication nearly two years ago. I have found the broad range of subjects covered to be quite interesting. I am writing, however, in response to a short article presented in the 'Around the Trade' section of the March 1993 issue of *GJN* entitled 'A letter to the Trade - Jewellery trade accused of selling treated emeralds as natural' written by Mr A.J. Clark and the response letter written by Dr H.A. Hänni in the following issue. Dr Hänni has eloquently written many articles and responses for the trade concerning the practices and detectability of filling emeralds with various natural and synthetic materials (i.e. oils and resins). I feel it is important for the trade to understand that Dr Hänni is not alone in the beliefs and opinions he expresses. Therefore I would simply like to add a couple of additional remarks on this topic.

First, identifying the presence of filling materials in an emerald, or any other gemstone for that matter, seems to be the easiest part of this complex issue. However, this can in some cases be a more difficult operation that most people may realize. Visual observation is the primary tool when recognizing the various filling materials. The most commonly associated trait of

emeralds filled with Opticon is the so-called orange and blue flash effect. For some this effect is even considered proof of Opticon. While this may be true in some circumstances, the flash effect may not be displayed in Opticon treated stones when no hardening agent has been applied to seal, partially harden or fully harden the material. Additionally, I am familiar with at least two companies which fill emeralds for the trade who do not use Opticon, yet their fillers also display similar flash effects. It has been my experience that while these flash effects may identify a partially or fully hardened filling material, they are not capable of separating one from the other and also, of course, the lack of such effects does little to prove or disprove the identity of an individual filling material.

Recently, work has been published on the potential of identifying the individual filling materials through infrared spectroscopy (see Henn and Redman, 1993). Although work such as this has shown some promise, these experiments, along with others that have given similar results, were conducted under controlled and ideal conditions with pure filling substances. As Dr Hänni already pointed out, this is unfortunately rarely the case when an emerald is submitted to a Laboratory from the trade.

Mr Clark in his 'Letter to the Trade' additionally made several statements, such as the expansion of Opticon being the cause for an increased brittleness and breakage of emeralds in the possession of people in the trade as well as the

public. I feel these comments were either ill-advised and/or simply erroneous and should not be left unaddressed. Again, as already remarked, the expansion coefficient of Opticon and other synthetic resins is similar to that of natural oils and resins. This expansion, if it were to take place, is not sufficient to break gemstones into pieces. The only way this scenario could even be theoretically possible, would be if two or more pieces of an already broken emerald were to be cemented back together with the use of a completely hardened polymerized synthetic resin.

Later in his 'Letter' Mr Clark also uses diamonds as an example of why and how the filling of emeralds should be disclosed. Let me explain why this comparison is not a valid argument. First, a high lead content glass-like material is the substance which is used to fill fractures in diamonds and not a natural resin, synthetic resin or oil. Secondly, diamonds have pricing structures based on well developed, internationally recognized grading systems, evaluating the '4 Cs' [colour, clarity, carat weight and cut]. Therefore when a substance is intentionally applied to alter two of these Cs - colour and clarity - then clear determinations cannot be made and everyone agrees that full disclosures are necessary. Emeralds and other coloured stones, on the other hand, do not possess pricing structures based on such internationally recognized grading systems.

In conclusion I would like to make a request of the trade organizations, such as CIBJO, to modify their current rulings with

regard to filling emeralds with essentially colourless material, be they natural or synthetic. The current decisions to allow certain filling materials while requiring the disclosure of others only promotes misunderstanding and misrepresentation of the various filling materials used, while developing 'myths and misconceptions' in the minds of people within the trade and public.

Yours etc.,

**Christopher P. Smith**

Senior Staff Gemmologist,  
Gübelin Gemmological  
Laboratory, Lucerne, Switzerland.  
13 August 1993

#### Reference

Henn, U., and Redmann, M., 1993. Smaragde mit künstlich behandelten Rissen and deren Erkennung. *Zeitschrift der Deutschen Gemmologischen Gesellschaft*, **42**, 1, 17-25.

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Dear Sirs

#### Disclosure

I want to focus the trade's attention on the central issue which we are discussing. It comes down to one simple word - deceit. Stones are treated for one of two reasons: to improve, or to deceive. The only difference between these is disclosure.

A treatment which is disclosed is an honest attempt to improve on nature: the consumer is free to decide whether the improvement is acceptable. A treatment which is not disclosed is an attempt to trick the buyer into believing that the stone is better than it naturally is.

If any of my trade colleagues think that deceit is an unfair word, I can offer the following alternatives from Roget's *Thesaurus* under Deception: falseness, trickery, jiggery-pokery, cheat, wile, forgery, counterfeit, sham, fake, delusion, dupe, bamboozle, foist upon, fob off, mislead.

There is nothing wrong with treatments, provided the name clearly states what they are.

Yours etc.,

**Michael van Moppes, FGA**

St Leonards on Sea, East Sussex  
TN38 8EB.  
28 May 1993

## Course in Dublin

Dear Sirs

A course entitled 'A pictorial history of jewellery, 2500BC - AD 1970' is to be held at University College Dublin.

For further details of what promises to be an interesting series of ten two-hour sessions, contact Gabriel F. O'Gradyoon (01) 909778 or Kevin Hurley, Administrator, Adult Education Department, University College, Dublin, Belfield Campus, Dublin 4, Ireland.

Yours etc.,

**Gabriel F. O'Grady, FGA**

7 Rathfarnham Road, Terenure,  
Dublin 6W.  
28 June 1993

# COMPETITION

## Time on your hands

Clock and watch lovers here you are.

In the nineteenth century an intrepid explorer made the long and arduous journey to the upper reaches of the Pheti Dhurin river and encountered a previously unknown local tribe. The

explorer's most prized, indeed only, possession was his pocket watch. The tropical climate had, over the long years, removed all vestiges of markings or decoration from the watch face, but it still kept perfect time.

Recently an anthropological expedition re-traced the explorer's steps and found the still isolated tribe. After the explorer's death

the tribe had kept the watch going (miraculously it still kept perfect time) and they had actually used it to develop a simple time keeping system whereby they divided each day into 22 equal-length segments.

Why 22 and not 24?

Answers as usual to Jack Ogden c/o GAGTL, 27 Greville Street, London EC1N 8SU.

J.M.O.

## Local Colour

In 1827 T. Allsop wrote in the *Technical Repository* (vol. 10), 'On East Indian lapidaries and jewellery'. He explained how the locals coloured the backs of inferior stones 'which, when set, would almost deceive the best judges' and advised that one should never buy set stones. Nevertheless, Europeans often thought they knew better and 'generally became dupes to their own misguided judgement'. The locals also were adept in making doublets from their stones or glass and Allsop described one example with a diamond top and a 'water sapphire' base which, he noted, 'I candidly acknowledge I mistook for a perfect, well-shaped brilliant'.

J.M.O.

## Replies to the competition in the last issue

Readers were asked to provide a short sales blurb for an albatross pendant in the style of a colour supplement advertisement. The response was amazing with some wonderful humour and a healthy disrespect for both the jewellery industry and its customers. We have only room to print the chosen 'best' (not an easy choice) but I cannot refrain from giving a few odd bits from other entries. For example, D. Pratt's 'At only £250.00 we can guarantee that ... this pendant will alter your financial status' and Donald Coughlin's imaginative adaptable version 'with a pair of pliers just squeeze and pull the gold under the albatross's lower bill and instantly you have a pelican!'. G.M.A. McChlery's pendant really tempts us with its plating of 'Gleaming 9 carat gold' and its 'Cape diamond eyes'.

Anyhow, after much deliberation the winner was chosen as R.I. McKay of 88/90 Hatton Garden, London EC1N 8PN, who submitted the following:

### Get the Bird with the Limited Edition Albatross Pendant

Inspired by the fabulous legend of the Ancient Mariner, the albatross pendant is this season's white hot fashion sensation.

Lovingly created by craftsmen in genuine plastic this dazzling treasure is perfected by the stunningly inventive device of suspending the jewel from a hempen cord. In addition, each albatross pendant comes to you individually packaged in its own luxury machine-stitched sachet of woven hessian.

Collectors worldwide will be flocking for their albatross, so to guarantee the investment potential of each piece, we promise that production will be strictly limited to the number of orders taken.

The ideal gift for your loved one, yourself and all the family. Hang this albatross around your neck and your friends will marvel at your sense of taste!

Rush your order to Albert Ross Jewels, Aviary Row, London W1.

Jasper Dopstick was so inspired by the whole idea that he considered marketing an entire 'Dead Sea-Birds of The World' series, but this enraged his more politically correct friend Penny Waite and he dropped the whole idea and wandered off muttering that the only good albatross was one served up in an ancient marinade.

# What's on

## Gemmological Association and Gem Testing Laboratory of Great Britain

### GAGTL ANNUAL CONFERENCE

24 October 1993

The Great Western Royal Hotel Paddington, London

The theme of the Conference this year will be **Inclusions** and we are pleased to announce that **Dr E. Gübelin** will deliver the keynote lecture on newly discovered inclusions in gems. Following the theme, a discussion on features in diamonds will follow lunch.

Illustrated lectures that are to be presented are set out below.

Dr E. Gübelin 'New gem inclusions'

E. Alan Robbins 'Burmese and Vietnamese gem inclusions'

Michael O'Donoghue 'Montana sapphires'

Philip Sadler 'Unusual gems in forensic science'

Stephen Kennedy 'Pearls in the Arabian Gulf'

Throughout the day delegates will have the opportunity to view displays and participate in practical demonstrations as well as a discussion on the features in diamonds.

#### GAGTL Open Day

The conference will be followed on Monday 25 October by an Open Day at the GAGTL Gem Tutorial Centre which will include demonstrations and displays of recent stones, treatments and equipment. The Presentation of Awards to those students that were successful in the 1993 Diploma examinations will be held during the evening of 25 October.

For further details and a booking form please contact Miss Linda Shreeves at GAGTL on 071-404 3334 (fax 071-404 8843).

#### London

Meetings to be held in the GAGTL Gem Tutorial Centre, 2nd floor, 27 Greville Street, London EC1N 8SU (entrance in Saffron Hill).

The charge for a member will be £3.50 and, as places are limited to 55, entry will be by ticket only, obtainable from GAGTL.

- 20 September 'Photographing minerals and gems'. Frank Greenaway
- 6 October 'Diamonds in the Laboratory'. Eric C. Emms
- 18 October 'The distinction of natural from synthetic diamonds'. Professor I. Sunagawa

- 8 November Thai evening. Amanda Good and Martin Issacharoff
- 22 November 'CIBJO matters - the gem trade in Europe'. Harry Levy
- 7 December 'Pearls in the Laboratory'. Stephen Kennedy and Ana I. Castro

#### Midlands Branch

- 24 September 'Deep diamonds'. Dr Jeff Harris
- 29 October 'Rescued from the scrap box'. David Wilkins
- 26 November 'A practical demonstration of light behaviour in gemstones'. Dr Jamie Nelson

The meetings will be held at Dr Johnson House, Bull Street, Birmingham. Further details from Gwyn Green on 021-445 5359.

#### North West Branch

- 20 October 'Minerals in the Bronze Age'. Tony Hammond
- 17 November Annual General Meeting
- Meetings will be held at Church House, Hanover Street, Liverpool 1. Further details from Joe Azzopardi on 0270 628251.

## 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 only open to SJH members and their guests. A nominal charge is made for wine to comply with our charity status.

- Monday 27 September Later Bronze Age Goldwork from Ireland. Mary Cahill, FSA.
- Saturday 30 October **A Day Conference on Nineteenth Century Jewellery.** To be held at the Scientific Society's Lecture Theatre in New Burlington Place, off Savile Row, London W1. For further details contact Nigel Israel, 14 Ryfold Road, Wimbledon Park, London SW19 8BZ.
- Monday 1 November Jewellery of the Late Renaissance and Baroque. Hugh Tait, FSA.
- Monday 6 December Coloured Gold Jewellery in the Eighteenth and Nineteenth Centuries. Judy Rudoe, FSA and Sue La Niece.