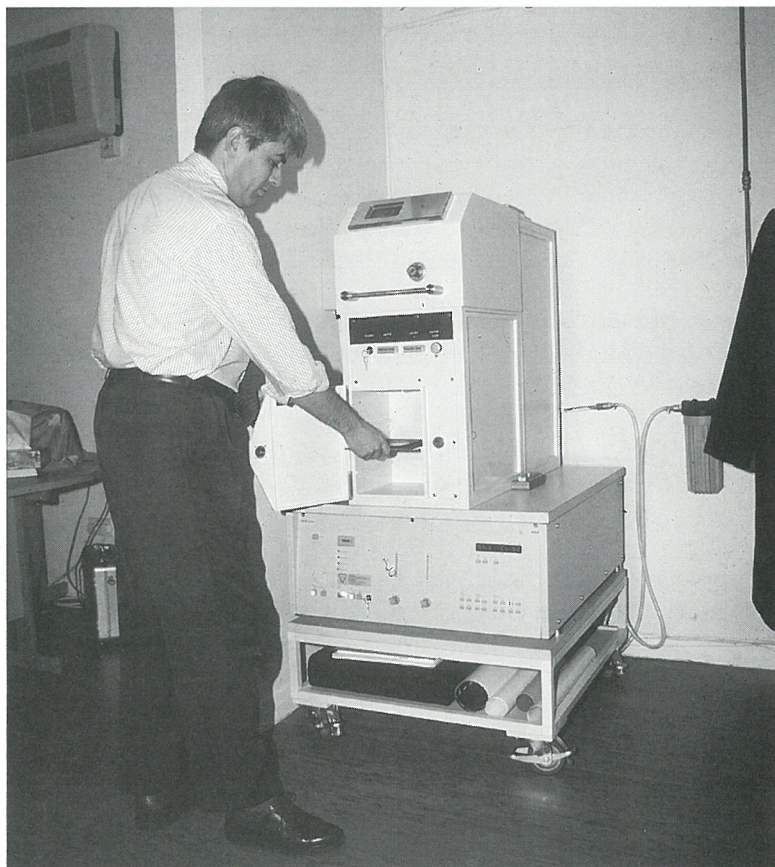


Gem & Jewellery News

VOLUME 5 NUMBER 1

DECEMBER 1995

AN X-RAY OF HOPE



Stephen Kennedy using the new equipment for testing pearls.

We were all very excited in the GAGTL Laboratory a few weeks ago when the new, custom built, X-ray machine arrived on the back of a large lorry. Although much care had been taken to ensure the machine would fit the many doors through which it had to pass, it was the lift that proved the greatest obstacle. However, after several hours and the removal of the lift

gate, it arrived at the third floor to take its place amongst the collection of other sophisticated instruments.

The machine has been specially built by Philips and GTP Engineering to meet the very exacting needs of the laboratory. The greatest use is to differentiate between natural and cultured pearls and the production of Lauegrams for the most conclusive identification of undrilled or

part drilled pearls. The machine is also used quite extensively for radiography, diffraction work and luminescence. It is a very useful aid in detecting certain glass fracture fillings in diamond.

Our clients may rest assured that their needs for X-ray analysis will be well catered for in the foreseeable future.

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EDITORIAL

Most people find the thought of buried treasure exciting and romantic. Archaeologists and museum curators take a rather more cynical view, since such finds are not without their problems.

Hoardings of jewellery, plate or coinage in gold and silver have been buried for safekeeping from prehistoric times onwards, and if for any reason their owners failed to return for them, they have remained in the ground, often to be unearthed in later centuries. Laws to deal with buried treasure evolved in many countries in the Middle Ages, and in England and Wales* the law of Treasure Trove ('found treasure') can be traced back to the twelfth century AD. For a find to be declared Treasure Trove, a Coroner's jury at a Treasure Trove inquest must conclude that its original owner concealed it with the intention of retrieving it later. If this was clearly not the case – for example, jewellery buried in the grave of the deceased owner, or single items evidently merely lost – they are not Treasure Trove, and belong to the owner of the land on which they were discovered.

In the UK, Treasure Trove belongs to the Crown. In the past, precious metal which was declared Treasure Trove was eventually recycled into gold and silver coinage. Historical or artistic considerations were generally ignored until well into the nineteenth century. Today we attempt to use this ancient law, originally devised to enrich the Treasury, in order to preserve antiquities for the national heritage. It is not always easy. To encourage full and prompt declaration, it has been customary for over 70 years to reward the finders of Treasure Trove with the full market value of the objects. The valuation is assessed by a panel of experts and scrutinized by a special committee, and any museum which wishes to acquire a treasure hoard must pay the agreed reward to the finder. Non-Treasure Trove hoards generally have to be bought from the landowner.

Apart from the financial implications (the reward payable on the late-Roman treasure from Hoxne was greater than the British Museum's entire purchase grant for the year) and the media pressures which accompany 'romantic' finds, there are other problems with the present situation. For archaeologists, the association of objects in a single deposit is of paramount importance, yet only gold or silver can be Treasure Trove. A pottery container or a hardstone setting detached from its ring has to be treated and acquired separately from the gold and silver. Secondly, it is really quite unrealistic to ask a jury to speculate on the intentions of a person concealing valuables in the ground perhaps 3000 years ago and to base a legal decision on that guess.

Attempts to reform the law and make it more appropriate to modern needs have not yet succeeded. For now, the curator must continue to agonize over finds which send the public into transports of joy.

C.M.J.

*Scottish Treasure Trove law differs from that of England and Wales.

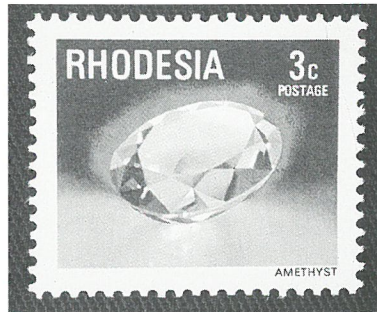
GEMSTONES – FACT AND MYTHOLOGY

Amethyst

Amethyst is a member of the quartz family, a dioxide of silicon, and varies in colour from a pale lilac through purple to almost black. Although abundant as a mineral, only a small proportion is of gem quality.

The main source of gem quality amethyst has been Brazil which produces shades from a pale colour to a fairly dark stone. Intense purple stones come from Uruguay, and rival those from a historically older source in Siberia; more recently fine coloured amethysts have been produced by Zambia. Few of these dark stones are, however, clean and in recent years such clean stones have become very difficult to obtain and consequently have gone up in price. In contrast, those of lighter shades have if anything become cheaper due to new sources being found. An experienced dealer can often tell the source of the amethysts from the colour alone.

In recent years a bi-colour variety has been discovered in Bolivia. These stones are coloured purple running into the yellow of a citrine and have been called ametrines. Such stones which are dark purple and a strong yellow are the most valuable.



Faceted amethyst on Rhodesian postage stamp.

History

Because royalty has always assumed the colour purple, amethysts abound in the ornaments of ancient Greeks and Egyptians, and there are some large amethysts in the Crown Jewels in the Tower of London. The Russian Empress Catherine the Great admired the stone and had thousands mining it in the Urals.

The colour purple was exclusive to the rulers of ancient Rome, and any commoner found wearing it could be put to death.

Because the stone encouraged a celibate state, symbolized trust and piety, and was of importance in the Roman Empire, amethyst reached a high status in the ornamentology of Catholic clerics and the dignitaries of the Eastern Churches. It was the stone of bishops, and it was found in their rings, staffs and in prelate's crucifixes.

Powers

Leonardo Da Vinci relates that the amethyst was able to dissipate evil thoughts and quicken intelligence.

An impressive amount of other miraculous powers have been ascribed to amethyst in various cultures. It was said to protect fields from storms and locusts, to award good luck in war and hunting, and to chase away evil spirits. Pliny wrote that the jewel, worn on a string of dog's hair around one's neck, protects against snake bites. Hieronymus later even reported that eagles put amethyst into their nests in order to protect their young.

In Tibet there are rosaries made from amethyst, since here the jewel was sacred to Buddha and was thought to encourage clarity of spirit.

Antidote to drunkenness

The Greeks believed that the stone, when worn, would prevent intoxication and may come from the following legend. The inebriated God Dionysus, offended at some neglect by man, swore to revenge himself by declaring that his tigers should destroy the first mortal that they may encounter. A timid maiden named Amethyst met the beasts and cried out in fear. Artemis heard her prayer and turned her, inviolate, into a pure rock crystal. So ashamed was the young Dionysus of his cruelty to the hapless maiden that he



Amethyst crystal group on German postage stamp.

threw down his goblet of wine, thus giving the crystal the beautiful violet hue that so charms the beholder's eye. The Greek word *amethystos* comes from a 'not' and *methystos* 'drunken'.

The stone is mentioned in the Bible as being one of the stones in the breastplate (the Ephod) worn by the high priest. The Hebrew word for amethyst is *Achlamah*, which has the connotations of a dream and the Midrash states it to be the colour of diluted wine. So the stone not only

preserved the wearer from drunkenness but possessed the power of inducing dreams and visions!

Another ancient Greek myth tells of Diana turning a nymph admired by Bacchus into amethyst, therefore the stone has also been called Bacchus's stone. To save a drunkard from falling into delirium, you might have mixed pulverized amethyst in his drink, and if one drank wine from amethyst cups one was again protected from the diseases of alcohol.

Sources

Perhaps the most exciting appearance of amethyst crystals is in agate geodes and druses in eruptive rocks. From the outside they look like boulders, large or small, but when cracked open they may reveal layers of coloured agates covered with jagged peaks of amethyst crystals. The largest cavity ever was found in Rio Grande do Sul around 1900. The shell measured ten by five by three metres and weighed about eight tons. It contained fist-sized amethyst crystals and a crystal from this Brazilian treasure can be seen in the Washington Museum.

Another place one could visit is 'Amethyst-Harbour' on the Canadian side of the Great Lakes. The violet quartz is said to occur there plentifully, but only rarely does it achieve gemstone quality.

Synthetics and Imitations

In spite of the abundance of natural amethyst, synthetic amethyst is now produced in large slabs and these are cut and polished to imitate the natural stones. They can be coloured in all the shades resembling natural amethyst and most stones have no inclusions. Because the dark, clean stones are now automatically suspected of being synthetic, there is a trend to cut synthetics to imitate the cheaper and paler shades of colour. It is extremely difficult to differentiate between the

real and synthetic varieties and to do so with certainty may require highly sophisticated equipment. Some cutters have been known to use parcels of natural stones, some of which may have slight inclusions, as seeds to convince the buyer that the parcels contain natural stone.

Stones that may be confused with amethysts include the purple variety of fluorite, the lilac pink kunzite, a range of purple sapphires, tanzanite, cordierite (iolite) and lilac varieties of almandine garnets.



Gold ring from the Thetford Treasure (fourth century AD), set with an amethyst and alternating garnets and emeralds. (Photo courtesy of the British Museum.)

Enhancement

Heating amethyst can change the colour to an orangey-yellow, called Madeira citrine, or excessive heating may drive off all colour and the stone becomes colourless. The cause of colour in amethyst is a trace amount of iron in the crystal structure. Some stones may lose their colour when exposed to sun-light or other ultraviolet radiation.

Lastly beware of more recent additions to amethyst imitations, namely purple synthetic cubic zirconia, and I have heard of a purple synthetic garnet!

H.L.

Acknowledgements to publications of the ICA Gembureau Europe and to the booklet *The Romance of the Jewel* published by Bentley & Co, London.

EDUCATION

Examination dates June 1996

Gemmology theory:

Preliminary – Monday 24 June

Diploma – Tuesday 25 June

Gem Diamond theory:

Wednesday 19 June (p.m.)

Candidates will be advised individually of dates for the practical examinations.

Final entry date: 31 March.

Bruton Medal

The GAGTL are pleased to announce that in 1996 a new medal will be introduced to be awarded to the candidate who submits the best set of answers of sufficiently high standard in the Gem Diamond Examination. The award is to be named in honour of the GAGTL President, Eric Bruton, to recognize his work in the field of diamonds.

A competition is being arranged for the design of the medal, full details of which appear on p.15.

Trip to Hong Kong September 1996

Following the success of the Idar-Oberstein tour, we shall be pleased to hear from anyone wishing to join our Hong Kong trip from London.

The likely dates are 14 to 22 September, covering the jewellery and gem fair, as well as sightseeing, shopping and special visits.

Let us know now if you are interested – phone the Education Office on 0171-404 3334 without obligation.

GAGTL Gem Tutorial Centre

- 5 January**
2.00 p.m.–
5.00 p.m. **Hand Lens Characteristics of Biological Gem Materials**
Dr Grahame Brown, the well known gemmologist and organic gem material specialist, will lead this fascinating afternoon seminar.
Price £29.38
- 6–7 January,**
25–26 May and
1–2 June **Two-Day Diploma Practical Workshop**
The long-established intensive practical course to help students prepare for the Diploma practical examination or for those in the trade or elsewhere to brush up on technique. This is the course to help you practise the methods required to coax the best results from gem instruments. The course includes a half-length mock exam for you to mark yourself.
Price £160.39 (£111.04 for GAGTL registered students) – includes sandwich lunches
- 13 January** **A Day to String Your Own Beads**
Learn with your own pack of beads and materials; with an expert stringer, step-by-step instruction and fascinating detail, tips and hints.
Price £105.75 – includes your pack of beads and materials, and sandwich lunch
- 14–15 February** **Synthetics and Enhancements Today**
Are you aware of the various treated and synthetic materials that are likely to be masquerading amongst the stones you are buying and selling? Whether you are valuing, repairing or dealing, can you afford to miss these two days of insights, tips and practical investigation?
Price £223.25 (including sandwich lunches)
- 6 March** **Enquire Within : Emerald**
A valuable and concentrated look at all aspects of emerald: natural rough and cut stones, treated, synthetic and imitation stones.
Price £111.63 (including sandwich lunch)
- 13 March** **Preliminary Workshop**
A day of practical tuition for Preliminary students and anyone who needs a start with instruments, stones and crystals. You can learn to use the 10x lens at maximum efficiency, to observe the effects and results from the main gem testing instruments and to understand important aspects of crystals in gemmology.
Price £47.00; GAGTL students £33.49 (including sandwich lunch)
- 20 March** **Enquire Within : Ruby and Sapphire**
A day looking at all aspects of these gems – natural, treated, synthetic and imitation.
Price £111.63 (including sandwich lunch)

NOTE: All prices include VAT at 17.5%

**Please ring the Education Office (0171-404 3334)
for further information**

Gemmology grows in China and Hong Kong

The GA Education Office now administers courses and exams for ten Chinese language Allied Teaching Centres (ATCs). During their visit to Hong Kong and China in September, Ian Mercer, Director of Education, and Linda Anderson, Manager of Education Administration, visited six centres and discussed examination arrangements and details of gemmology and gem diamond courses.

For the Asian Gemmological Institute and Laboratory (AGIL) annual Awards Ceremony, Ian had been invited to present GAGTL Diplomas to the successful candidates. Next day, AGIL Director Dominic Mok accompanied Ian and Linda during a visit to Guangzhou in China, where they toured the Gem and Jade Identification and Research Centre and the ATC in Zhongshan University Department of Geology.

Back in Hong Kong, visits were made to our other ATCs. At the Hong Kong Institute of Gemmology they were welcomed by HKIG President, C.M. Ou Yang, and there also was Zhou Nanquan, eminent expert on antique jade and Research Fellow at the Palace Museum,

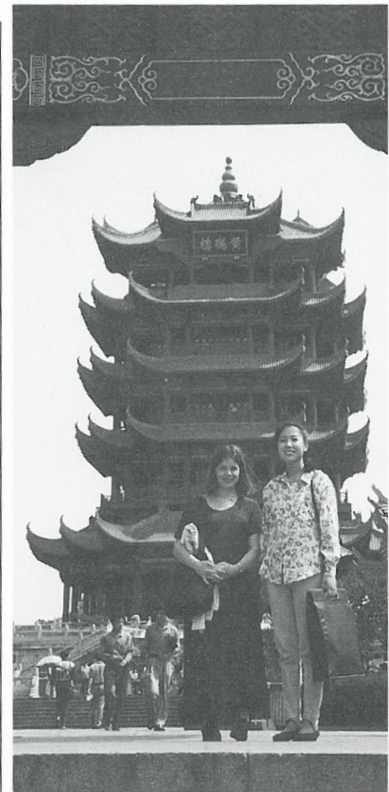


Standing before the statue of Sun Yat Sen in the Zhongshan University campus are Dominic Mok (right of statue) and Research Centre Director Zhili Qiu (left of statue). Also in the picture with Ian and Linda are Frankie Yu of AGIL (far left) and Binghui Chen (far right), Deputy Director of the Research Institute.

Beijing. At the Hong Kong Baptist University ATC a meeting with Course Director Kaman Fung and Associate Dean Dr Betty Chang, was completed by a tour of the University's splendid new practical gemmology laboratories nearing completion. Mrs Kitty Wong, course organizer, and Lawrence



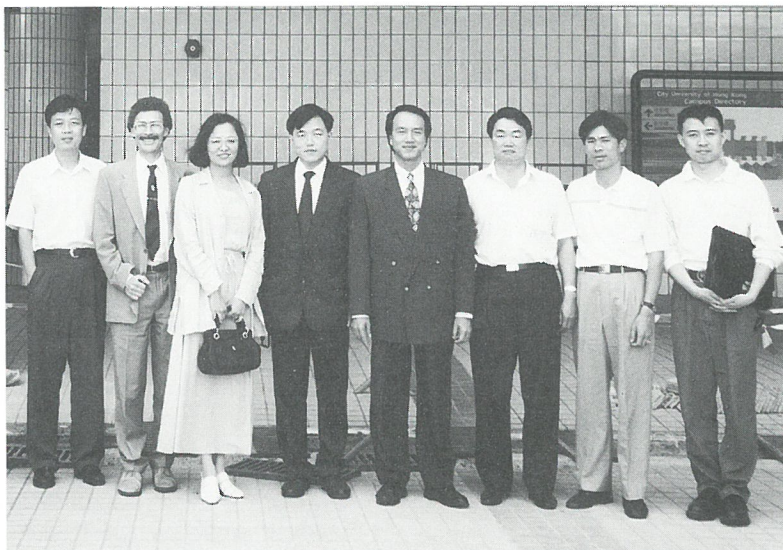
Some of the Gem Diamond Diploma holders at the AGIL Awards Ceremony held on the 38th floor of Hong Kong's World Trade Centre Club at Causeway Bay.



Linda and guide Liping Li, a gemmology lecturer and geologist of the University, at the Yellow Crane Pavilion.

Tsang, Continuing Education Manager of the well-situated YMCA ATC overlooking the harbour, showed their newly-fitted practical gemmology room. Dr Peter Yu at the City University led a tour of up-to-the-minute research facilities, some used for jade and gem research.

Following a final visit to AGIL and to the Hong Kong Jewellery Fair, Ian and Linda continued their progress into China by flying to Wuhan, on the mile-wide Changjiang – the Yangtze River. Here they had been invited to present GAGTL Diplomas to many successful gemmology and gem diamond candidates at the China National University of Geosciences. These included both the Anderson-Bank Prize winner and also the one-hundredth recipient of a GAGTL Diploma since the University started teaching our courses six years ago. Professor Chen, President of the University, is the pioneer and driving force of the gemmology ATC programme and the first Diamond Diploma course in China. A sight-seeing tour of Wuhan included a

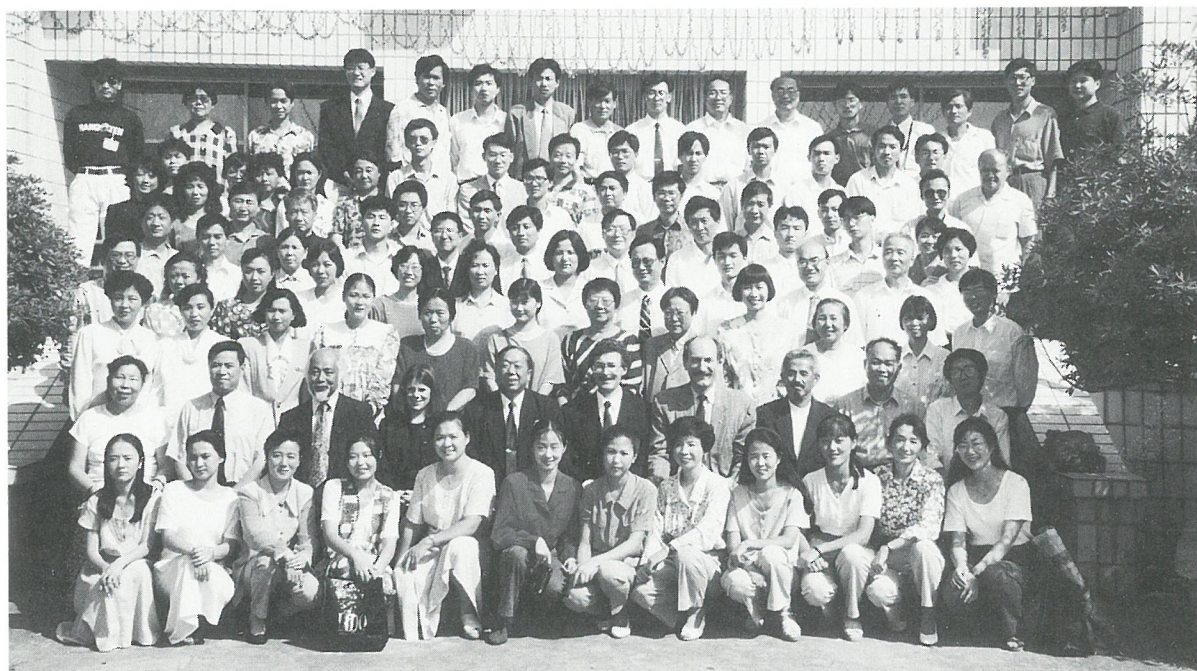


Dr Yu (fifth from right) standing next to Dominic Mok of AGIL, while next to the right is He Nai Hua of the China National Pearl, Diamond, Gem and Jewellery Import and Export Corporation.

walk across the river, which took half an hour, to look at the Yellow Crane Pavilion.

The GA Education Office staff acknowledge the efforts of all those in Hong Kong and China who ensured the success of this trip. The hard work of individuals and the ATC staff who continue to

put great effort into the ATC courses and those who carefully ensure the correct working of our examinations, is greatly appreciated. We all recognize the special achievements of so many students in establishing the worldwide excellence and status of FGA and DGA Membership.



Diploma holders and staff members at the China National University of Geosciences. Professor Chen Zhonghui is seated between Ian Mercer and Linda Anderson (centre of second row from the front), with Professor I. Sunagawa (Japan) and Dr Henry Hänni (Switzerland) either side, and Professor Yan at the far left of the same row.

SALEROOM NOTES

A sale entitled 'Magnificent jewellery' held by Sotheby's in New York on 25 and 26 October brought US\$42,205,555, the second highest total for a sale of jewellery in America.

Antique jewellery with great provenance was highly sought after, particularly the historic and important diamond necklace, *circa* 1900 (est. US\$150/200,000) made of diamonds originally mounted in the great '*comb a pampilles*' of the French Crown Jewels, worn by Empress Eugénie on the occasion of the Prince Imperial's christening, which sold for US\$244,500 to an Asian private collector; and an extremely fine and rare emerald and diamond necklace and earrings, *circa* 1830 (est. US\$200/225,000) which fetched US\$244,500.

The highest price of the sale was US\$3,522,500 paid for a rare deep blue diamond ring, 6.70 carats (est. US\$2/2.5 million) by international jewellery dealer Graff Diamonds Ltd., who named the stone *The Magnificent Graff Blue Heart* immediately after the sale. The price for the blue diamond, US\$525,746 per carat, represents the second highest price paid per carat for a blue diamond at auction.

M.O'D.

GEMMOLOGY IN SCOTLAND

Late in October Doug Garrod, from the GAGTL Education Department, travelled from England's capital to that of Scotland, aided by a 'native guide' – Rachel Bruce from the Laboratory.

On Friday 20 October Doug addressed the newly-formed Scottish Branch at Newliston House, an eighteenth century building which had been rebuilt in the Adam style, with a talk entitled 'A bit of nonsense', which gave an insight into the lores and superstitions that are associated with gemstones.

This was a prelude to a two-day workshop led by Doug with assistance from Rachel, and Tom and Marjorie Watson, held at the Royal Overseas League in Edinburgh in a room overlooking Edinburgh Castle. Those attending the workshop, including students and members of the jewellery trade, were able to practise methods of distinguishing gemstone species and detection of the latest treatments and synthetics.

Details of future Scottish Branch meetings are given on p.16.



(From left) Rachel Bruce, Stewart Dawson, Tom Watson and Kirsty Nelson examine filled diamonds at the Edinburgh workshop.

FORTHCOMING EVENTS

For details of GAGTL and SJH events, see *What's On*, p.16.

Exhibition of eighteenth and nineteenth century engraved gems at the Staatliche Münzsammlung in Munich to 4 February 1996. Entitled *Geschnittene Steini des 18 und 19 Jahrhunderts; vergessene Kostbarkeiten aus der Staatlichen Münzsammlung München*.

Fabergé in America: legacy of the Tsars

Focuses on Fabergé in American collections, among them those of Matilda Geddings Gray in the New Orleans Museum of Art and Malcolm Forbes. It will be at the Metropolitan Museum of Art, New York, from 13 February to 28 April 1996.

MUSEUM NEWS

The Department of Prehistoric and Romano-British Antiquities of the British Museum, with its important collection of jewellery, is undergoing renovation and will be closed from the end of 1995 until its reopening in the autumn of 1996.

A new commercial gallery, the Terzo Millennio, has opened in Milan at Via S. Andrea, 12 (near Via Montenapoleone). It is dedicated to presenting a continuing series of exhibitions on jewellery.

Birmingham, City of Metals

SJH visit

Our journey from Birmingham New Street took us around the concrete clad inner ring road, past a giant grandfather clock and down a strangely domestic red brick terrace. Shafts of bright silver light glistened from the ground floor windows. We were in the Jewellery Quarter and the puzzling magical lights were reflections of the morning sun in the silver and gold wares displayed where once curtains hung.

There is nothing more fascinating than the opportunity to experience firsthand something so different from one's own working world. The Jewellery Discovery Centre offers this rare possibility. The visitor centre briefly introduces Birmingham's jewellery and silversmithing trade and leads to a conducted tour around the immaculately preserved workshops and office of Smith and Pepper, jewellery manufacturers established in 1899. The now deserted rooms were brought to life through the vivid stories of our tour guide, once a member of staff who described the characters as well as the day to day running of this once highly productive firm. We were assured that the rooms remained exactly as they had been when the firm closed its doors in 1981.

From a time capsule we were led through the labyrinth of streets to a living factory, Wilmots. It was a privilege to visit a current maker of gold watch cases and bracelets. Here, traditional hand threading of gold chain bracelets continued side by side with computer controlled CNC lathes, which with a touch of a key could change the cut at the head. In an adjacent workshop we were initiated into fascinating secrets of the ancient lost wax casting technique and shown trees of silver links that in themselves were art objects.

In only a few words I cannot do justice to the day. The highlight for me was a tour around the refurbished Jewellery School – tempting one away from London to pursue a career in working with precious metals rather than merely studying them!

Amelia Fearn

GOLD 'CLAY'

Goldworking methods have changed very little since prehistory, so a real technological innovation is of great interest.

Some months ago newspapers carried reports of a new material available from the Mitsubishi Materials Corporation of Japan, a malleable clay consisting of gold or other precious metal combined with water and a secret 'organic binder'. Once shaped by modelling or moulding, the clay may be fired and the non-metallic components evaporate, leaving a solid gold shape which can be worked further by any of the conventional techniques. The clay is available in silver, gold (18 and 24 carat, the former obtainable in three colours) and platinum. It is at present substantially more expensive than the metals in their normal form.

British jewellers Elizabeth Gage and Bill Hackett experimented with the gold clay and apparently found it somewhat difficult to handle, but agreed that it opened up intriguing new possibilities in jewellery design.

C.M.J.

The Journal of Gemmology

Back issue

A GAGTL member is seeking the following issue of the *Journal of Gemmology* which is no longer in print:

1979, Volume 16, No. 6

If you are able to supply this issue, please contact Mary Burland at the GAGTL, 27 Greville Street, London EC1N 8SU. Telephone 0171 404 3334, Fax 0171 404 8843.

JERWOOD PRIZE FOR JEWELLERY

Peter Chang and Charlotte de Syllas have been awarded the first ever Jerwood Prize for Jewellery, receiving an equal share of the £15,000 prize. The award, which is the only one of its stature for the applied arts in the UK, was presented at the Crafts Council by John Tusa, chairman of the judging panel, at an award ceremony on Wednesday 6 September. The panel, consisting of Richard Edgecumbe of the Victoria and Albert Museum, Lucy Ferry, Lady Amanda Harlech, creative director for John Galliano, and author and curator Ralph Turner, selected the winners from a shortlist of six established jewellers, including Cynthia Cousens, Wendy Ramshaw, Mah Rana and Esther Ward.

The Prize, which is to become an annual event, has been introduced to reward an established jeweller displaying innovative design and fine craftsmanship over the past five years, as well as to encourage further appreciation and understanding of contemporary British jewellery.

GAGTL ANNUAL CONFERENCE

Gemmology in Britain

The 1995 Conference, held in London at the Scientific Societies Lecture Theatre on Sunday 1 October, proved to be an international event once again with delegates attending from 14 countries worldwide.

After welcoming those present, Christopher Cavey introduced the keynote speaker, Alan Hodgkinson, resplendent in a kilt, who gave delegates an insight into the gemstones of Scotland. He described in detail the Honours of Scotland, older he claimed than the Crown Jewels in the Tower of London, and gave the history of each piece. He went on to describe the geology of the area and the abundance of gemstones found in Scotland including agate, beryl crystals (including aquamarine), gar-



Keynote speaker, Alan Hodgkinson, appropriately dressed for his lecture *The Gemstones of Scotland*.



Delegates relaxing during the lunch break at the 1995 Conference.

nets, jasper, sapphire (as reported by Brian Jackson in *Journal of Gemmology*, 1984, XIX, 4, p.336), blue topaz, bi- and tri-colour tourmaline and zircon, as well as river pearls. Alan ended his lecture by describing and demonstrating some visual optic techniques by which gems can be tested without the aid of instrumentation.

David Lancaster of Christie's gave a fascinating and well-illustrated talk on Victorian gem-set jewellery. Continuing Alan Hodgkinson's theme, he began with Celtic designs set with Scottish pearls and jaspers, followed by intaglios and cameos of the period.

He described a number of gem-set pieces including those depicting the naturalism theme in vogue at the time and a number of insect designs. A great deal of care went into the making of the pieces whether they were set with precious gems or paste. Mourning jewellery was popular, with amethyst being used as 'semi-mourning' after jet. Hair was not only used for mourning, but the hair of living loved-ones was also enclosed in locket-backs. Problems of dating could arise with revival pieces set with old-cut gems and pearls.

The final talk of the morning session was by Stephen Kennedy of the



Terry Davidson and Margarida Simões examine fracture-filled and lasered diamonds.

GAGTL, who reported on the new X-ray machine recently acquired by the Laboratory (as reported on p.1).

During the lunch break delegates had the opportunity to view fracture-filled and lasered diamonds under the microscope with the expert guidance of laboratory staff.

Terry Davidson of Cartier's opened the afternoon session by introducing Helen Fraquet, who gave an enthralling talk on her research into the livelihoods of amber collectors in East Anglia. Amber could be found on the beaches in the area, especially after a storm when specimens would be washed up with seaweed and other



Helen Fraquet speaking on the amber of East Anglia.

debris. Amber had been used extensively in Victorian times, particularly by those partial to tobacco in cigarette holders and pipes, and was very popular as a memento of holidays spent in the area. Helen described the distinctive colours of amber from various countries, and methods of differentiating between amber and its simulants. Amber gets darker over time, and Helen illustrated this point with a superb specimen that had been carved on both sides at different times – Christ on one side and the Mother and Child on the reverse – that had darkened on the side exposed for the longer time.

Ian Mercer, Director of Education at the GAGTL, reported



Margaret Pout speaking to Director of Education, Ian Mercer.

on his recent research into the beginnings of gemmology in Britain, particularly gemmological education. With the aid of a number of illustrations of archival documents and photographs, Ian took delegates from a notice by Lewis Abbott in 1893 advertising six evenings of gemmology for 1s.6d., through the establishment of the Gemmological Association, to the worldwide examinations, Allied Teaching Centres, tutorials and workshops of today.

The final session of the day was a gemmological compilation entitled 'Gemmological eye-openers' by Alan Hodgkinson. Alan illustrated and discussed a wide range of natural and synthetic gems, and

described and demonstrated methods (often unique!) for differentiating between them. Some of the intriguing items covered were the identification of emerald through the shop window, use of a specially devised magnet to 'pick up' synthetic diamonds (even those set in a ring) and the identification of diamond without seeing, touching or instruments.

As in previous years, delegates not only enjoyed a very varied and interesting programme, but were able to share their interest in the ever-changing world of gemmology with new acquaintances from many different parts of the world.

Mary Burland



Amanda Gray and Michael O'Donoghue, with Vice President David Kent in the background (far right).

An errand of mercy

When Noel Deeks telephoned recently with the news that he had an interesting project for me, he must have thought that I was familiar with lapidary techniques. The interesting project turned out to be an elderly lady in distress in Shaftesbury! She was wearing a valuable jade bangle on her right wrist, which, when it had been given to her over forty years ago in Singapore by her husband, had slipped easily over her hand. As she valued the bracelet both for its beauty and its sentimental value she had never removed it from her wrist in all those years, and eventually she found she couldn't remove it even if she wanted to. Now the bracelet was beginning to chafe the sides of her wrist which had started to swell.

It seemed there was no jeweller in the Shaftesbury area who was willing to remove the bracelet, and I certainly did not have the necessary sawing equipment. Not to be put off by my lack of enthusiasm, Noel rang me back after a few hours with the news that he had a small electric hand drill, and had been able to borrow two $\frac{3}{4}$ inch diameter diamond-coated saw blades from Robert Holt in Hatton Garden. Allowing for the mounting spindle and locking screw, the saws had an effective cutting depth of about a quarter of an inch.

I was still reluctant to undertake a task which I felt required someone more experienced in this type of work. However, Noel was adamant – I was the only gemmologist in Dorset who was anywhere near Shaftesbury and, anyway, I had a good bedside manner! After this it was difficult to refuse. However we did agree that if I found on inspection that the saw blade was not capable of cutting right through the bracelet, I would abandon the attempt. The following day the drill and the diamond coated saw blades arrived by recorded



The author making the first saw cut through the jade bracelet. The wooden handle of the steel spatula used to protect the owner's wrist is visible just above her hand.

delivery post, and I was committed.

The next thing for me to do was to speak to the owner of the bracelet, and to try and get an estimate of the thickness of the jade. This was more difficult than I had anticipated. The lady was visually impaired, and her companion was therefore asked to measure the bracelet for me. After I had been given the dimensions of its diameter, and then its width, we finally agreed that a measurement of $\frac{1}{4}$ inch was the one I wanted.

When I arrived at the lady's home, my first move was to verify the depth of cut needed. I improvised with a pair of tweezers with a locking slide to act as a calliper gauge, and was relieved to find the depth of the bracelet was a fraction under $\frac{1}{4}$ inch. It was then decided that the bracelet should be parted with two saw cuts placed diametrically opposite each other. This would allow the two sections to be reunited eventually with a gold hinge and clasp. The owner further requested that one of these cuts should be made in the centre of the best green section of the stone.

The lady's arm was supported on a small table on which a towel had been spread. Determined that the only thing that was going to be cut

was the bracelet, I had brought with me a steel kitchen spatula which I inserted between the bracelet and its owner's wrist. I locked the spindle of the diamond saw in the chuck of the miniature hand drill and ran it for a few seconds to familiarize the 'patient' with the noise. Next, I used a felt-tip pen to mark both sides of the bracelet with the lines of cut.

Then, gripping the bracelet with one hand, I lined up the saw blade and started the first cut, stopping every ten seconds or so to check the depth of cut and apply a few drops of cooling water. The green section of the jade took around five minutes to saw through, but after rotating the bracelet through 180 degrees, the paler side only took half that time. This confirms a 'rule of thumb' I had heard in the trade many years ago that green jade was much harder and tougher than white jade.

When the bracelet finally fell away in two halves I was much relieved! On inspecting the two sections it was with some surprise and satisfaction that I found both cuts were flat and straight and I left the satisfied owner exploring the cut surfaces of the two jade pieces with her fingers.

Peter Read

A Brilliant Christmas – 1895

It is interesting to see what jewellery shops in London had to offer the Christmas shopper one hundred years ago in 1895, a year when, we are told, diamonds and pearls were particularly in fashion.

Diamonds 'at the old price'

The Association of Diamond Merchants situated in the Grand Hotel Buildings, Charing Cross, had pre-empted a rise in the price of diamonds by a judicious advance purchase and were 'therefore in the position of being able to sell at the old price'. Apart from the usual run of brooches in the form of knots, horseshoes and riding crops, the ornaments on offer included a diamond-set pin in the form of a sword but 'in a quite new design, the elaborate scroll work around the hilt making a novelty out of the familiar shape' and 'a diamond butterfly set upon a spring so that it quivers at every movement of the wearer'. We are also told that 'a favourite present just now is a muff-chain: a long gold chain to go round the neck, such as our grandmothers wore their watches on, set at intervals with pearls or other precious stones.'

Opals

Talking of other precious stones, Streeter's over in New Bond Street had a very special exhibition of opal jewellery which prompted a commentator to say 'I have never seen anything at all to compare with the magnificent ornaments in this most beautiful of stones . . .'. One piece noted for its unusual character was 'an eagle, the head and the tips of the wings brilliant, the eye a large ruby, and all the breast and wing feathers cut as exactly as possible to the shape of the eagle's plumage in beautiful lustrous opals.'

More unusual jewellery was available at Liberty's in Regent Street – 'The jewellery at this establishment is of the most exclusive design and of the most exquisite workmanship.

It is so artistic and original, that many people who have no fancy for the more ordinary kinds of ornaments would find pleasure in wearing the classic necklets, brooches and bracelets which are here to be found, many of which are copies of antique jewels. A beautiful necklet in filigree gold is copied from an Etruscan design. It is studded with aquamarines and has a pendant to match; a brooch in the same style is equally effective. Any young girl would be delighted with a necklet of silver gilt Damascus work.'

' . . . the very sight of diamonds and pearls imparts a strange thrill of delight to most feminine hearts.'

More straightforward jewellery was found at Messrs Spink who had a fine selection of jewellery suitable for gifts including pearls which were 'very popular this season'.

Our commentator enthused: 'There is nothing that has the same fascination for the feminine mind as pretty jewellery, and one might confidently say that, if anyone is in doubt as to what to offer as an acceptable gift to a woman, a diamond brooch may be safely decided upon, for any number can be disposed of on an evening toilette, and no one yet ever had too many diamonds.'

Imitations

Of course, many people had too few diamonds. For those of lesser means imitations were a good alternative and these too were offered as Christmas gifts, although with descriptions that would horrify jewellers or Trading Standards' Officers today.

The Parisian Diamond Company (with establishments in New Bond

Street, Regent Street and Burlington Arcade) specialized in imitation gems, particularly their 'celebrated diamonds'. In our commentator's words: 'The very sight of diamonds and pearls imparts a strange thrill of delight to most feminine hearts. It was all very well for a love-sick poet, who probably never saw a well-dressed woman, to assert that "beauty unadorned is adorned the most", but we know well enough that beauty never shows to better advantage than when enhanced with well-selected jewels, and there never was a time when jewellery, and especially pearls and diamonds, were more in demand than at the present moment; moreover, those who wear gems representing a small fortune are, thanks to the Parisian Diamond Company, enabled to vie with their wealthier sisters with the proud assurance that it is absolutely impossible for anyone, even an expert, to detect the difference between the real and the imitation gems. Indeed, the constituents of both diamonds and pearls are precisely the same, only some are the work of Nature, the others art. The most wonderful thing about these diamonds is that, although they flash forth in their fullest beauty under artificial light, they do not depend on this to call forth their radiance. Open a case of them in a dull room, on a grey November day, and they emit exactly the same pure, prismatic brilliance that would stream from their costly cousins under similar circumstances. Moreover, the setting is perfect, and always in gold or silver.'

Orient pearls

'The Orient pearls are also truly marvellous, for they possess an exquisite "skin" and differ only from the genuine "treasure of an oyster" by being harder and more durable. Real pearls are very fragile; the Orient pearls are the reverse. The price of these jewels may always

be estimated at a tenth of the cost of genuine gems; thus, the charming pearl necklet at 20s [shillings] are quite equal to those that would cost £10, and the magnificent pearl and diamond necklaces at £50, and the tiaras at similar prices, look fit for the adornment of an Empress.'

Severe tests

Another, equally impressed, visitor to 'Faulkner's of 98 Regent Street, whose diamonds and pearls are world famous' enthuses: 'Never was there a time when brilliants were worn in greater profusion than the present season. Scintillating gems gleam out alike from day and evening attire, and those who cannot afford to carry "a king's ransom" on their persons may be content with the wonderful imitation diamonds, which are now brought to such a pitch of perfection that even experts cannot distinguish them from genuine stones without subjecting them to severe tests.'

Little doubt, then, that a hundred years ago diamonds, even imitation ones, were a girl's best friend, but I don't think our gemmological forebears would have liked the public to think that they would ever have to rely on 'severe' tests. Reminds me of Pliny's statement nearly two thousand years ago when, describing tests to detect glass imitation of gems, he observed that 'The most effective test is to knock off a piece of the stone so that it can be baked on an iron plate [to see if it melts], but dealers in precious stones not unnaturally object to this . . .'.
Jack Ogden

References

The main sources for the above are *The Illustrated London News*, December 1895 and *The Lady* Christmas edition 5 December 1895.

Members of the GAGTL wishing to raise issues concerning GAGTL activities are reminded that they may contact the Chairman of the Members' Council, Mr Colin Winter, c/o the GAGTL, 27 Greville Street, London EC1N 8SU.

LETTER TO THE EDITOR

Sir,

In the September issue of *Gem and Jewellery News*, Gems – Fact and Mythology (p. 57) you mentioned the phrase 'far above rubies' and asked for any wisdom on the translation of the Hebrew word Peninim which you state seems to be the translation of ruby but is used in Hebrew today for pearls.

Some years ago I was given a book entitled *The precious stones of the Bible* by Edward Clapton MD which was first published in 1878 and the first chapter is entitled 'The sardis or ruby'.

In his preface to the second edition, Clapton wrote 'Here, perhaps I may be allowed to remark upon the unfortunate renderings of some of the precious stones of the Bible, and other verbal changes in connection with them, in the Revised Version of the Bible, thus causing much needless confusion. It would have been far better to leave them as they were given with such remarkable accuracy and faithfulness in the Authorised Version. As a few instances I may mention:-

'(1) In the passage Job xxviii. 18: "The price of wisdom is above rubies", and other similar passages in Prov. iii. 15, viii. 11, and xx. 15, the Revisers have put for rubies, in the margin, "or red coral, or pearls". Now this could not possibly be. We have only to consider for a moment what pearls and coral are. A pearl is a solid tumour from the carcase of an oyster, and coral the calcareous skeleton from the carcase of a sea-polyp. Both, therefore, were abominations in the eyes of all Hebrews. It is sufficient to read Levit. xi. 9–12: – "All that have not fins and scales in the seas and in the rivers, of all that move in the waters, and of any living thing which is in the waters, they shall be an abomination to you . . .". As to this, it is an interesting fact that no mention

is made of pearls either in the Old Testament or the Apocrypha, except in Job xxviii. 18, where it is said by Job, "No mention shall be made of coral or of pearls". Coral is only alluded to in one other instance, Ezekiel xxvii. 16, when speaking of the riches and commerce of Gentile Tyre.

'(2) For "windows of agates", which is very intelligible, and for which there is sufficient warrant, "pinnacles of rubies" has been substituted, which is quite meaningless (Isaiah liv. 12).

'(3) In the Old Testament, for Carbuncle the Revisers have in every instance put in the margin "or Emerald" and for Emerald "or Carbuncle", as if these stones could be thus interchangeable. In the Apocrypha they have made no such change.

'(4) In Exod. xxxviii. 18, R.V., Diamond has in margin "or Sardonyx", as different a stone as could possibly be.

'(5) in Exod. xxxviii. 19, R.V., against Jacinth (Ligure A.V.), "or Amber" is needlessly put in margin. Amber is not a precious stone at all.

'(6) In Rev. xv. 6, there is a remarkable change in the text. Instead of "The seven angels clothed in pure and white linen", the Revisers have put "arrayed with precious stone, pure and bright". It appears that some ancient authorities read λινον and some λιθον. As to this Alford says: "The remarkable reading λιθον can hardly be genuine, though strongly attested."

E. Clapton, London, April 1899.

The whole chapter on the sardis or ruby is extremely interesting and fascinating and well worth reading, as is the rest of the book.

Yours etc.

Leslie Fitzgerald
Westfield, Woking
29 September 1995

COMPETITIONS

Pearly Temple

On the distant Isle B'damdee the priests of the local rain god have an interesting custom. On the first day of each week the king gives each priest seven pearls threaded on a length of silk, with a knot at each end and a knot between each pearl. Each priest then takes the sacred temple knife and slices through the silk thread in just one place – thus dividing the length in two.

At the end of each week the high priest counts up the number of days it has rained during the week. If it rained one day each priest must present one or more pearls to the temple, if it rained two days, two or more pearls and so on. Any pearls left over the individual priest may keep as his salary. There is one problem – he cannot cut the thread again, so, for example, if it only rained on two days, but he had divided the strand into one and six pearls, he must give the six. Also, the priests cannot help each other out by lending and paying back pearls, neither can an 'account' be carried over into subsequent weeks.

I have just been elected to the priesthood – how do I cut the thread each week to maximize my earnings?

Jack Ogden

Congratulations

The Society of Jewellery Historians and the GAGTL congratulate Herbert Tillander on celebrating the sixtieth anniversary of being awarded the Tully Medal in 1935.

The 1996 GAGTL Photo Competition

Images in Gems

For the 1996 competition, members are asked to submit pictures of gems with colour shapes, structures or inclusions that suggest a particular item to the viewer – the more spectacular the better.

Develop the range of evocative names established by 'feather', 'fingerprint', 'Chinese aeroplane', 'jardin', etc. What images may be suggested to you by an unusual cut or perhaps by an unconventional arrangement of gems in jewellery?

All entries will be judged for originality, beauty and gemmological interest.

The following prizes will be awarded:

First Prize: £100.00

Second Prize: £75.00

Third Prize: £50.00

Entry forms and details of the rules of entry will be circulated to all members.

Design Competition

As reported on p.4, in 1996 a new medal will be introduced as an award for the best set of answers of sufficiently high standard submitted for the Gem Diamond Examination. The medal will be in honour of Eric Bruton to recognize his work in the field of diamonds.

A competition is being held for the design of the medal, and entries are invited from all individuals. The medal is to be die struck in silver gilt and double sided, and dimensions should be approximately 45mm in diameter and 5mm thick.

A prize of £250 will be awarded for the winning design, and the designer will be invited to attend the 1996 Presentation of Awards ceremony to be held at Goldsmiths' Hall, London, to receive the prize.

The closing date for entries is 29 February 1996.

For full details and an application form contact Mary Burland at the GAGTL, 27 Greville Street, London EC1N 8SU. Telephone 0171 404 3334, Fax 0171 404 8843.

Answer to Competition in the last issue

There are five plastic bags each containing six or more diamonds. Four bags contain 1.00 carat stones, the other contains 1.10 carat stones, but we don't know which is which. What is the minimum number of weighings that we need to carry out to identify the bag with the larger stones?

The surprising answer is one weighing. Number each bag, 1 to 5, then take one stone from bag 1, two stones from bag 2, three stones from bag 3, and so on, and weigh them in one go.

The pan will contain 15 stones and a moment's thought will show that the balance will read 15.10 carats if bag 1 contains the heavier stones. 15.20 carats if bag 2 contains the heavier stones. 15.30 if they are bag 3 and so on. It is thus easy to correctly mark the bags after just one weighing operation.

The only necessity is to keep the stones from the different bags separate on the balance pan, otherwise putting these back into the correct bags is a whole new puzzle!

WHAT'S ON

Gemmological Association and Gem Testing Laboratory of Great Britain

London

Meetings will be held at the GAGTL Gem Tutorial Centre, 2nd floor, 27 Greville Street (Saffron Hill entrance), London EC1N 8SU. Entry will be by ticket only at £3.50 for a member (£5.00 for a non-member) available from the GAGTL.

- 4 January **Gemstones – Australia's national treasure**
Dr Grahame Brown
- 28 February **The art and science of valuation**
Rosamond Clayton
- 8 May **Identifying inclusions within gemstones**
Dr Jamie Nelson
- 10 June Annual General Meeting

Midlands Branch

Monthly meetings will be held at the Discovery Centre, 77 Vyse Street, Birmingham 18 (for directions to the Sunday Gem Club Venue contact Gwyn Green on 0121 445 5359). Further details from Mandy MacKinnon on 0121 624 3225 or Neil Rose on 0161 483 8919.

- 21 January **Gem Club** – Is it the real McCoy?
- 26 January **Bring and Buy, Quiz Night, Raffle**
- 18 February **Gem Club** – Talk on history of pearl buttons and bead-stringing workshop
Alan Jobbins
- 23 February **Jades**
Alan Jobbins
- 4 March **Visit to Birmingham Assay Office**
- 24 March **Gem Club** – Silversmithing activity day
- 29 March **Lavriotike: treasure house of Attika**
Edgar Taylor
- 14 April **Gem Club**
- 26 April Annual General Meeting followed by a talk by D.H. Ariyaratna
- 28 April Preliminary Gemmology Seminar
- 5 May Diploma Gemmology Seminar
- 19 May **Gem Club** – day visit to Dolgellau Gold Mine

North West Branch

Meetings will be held at Church House, Hanover Street, Liverpool 1. Further details from Joe Azzopardi on 01270 628251.

- 20 March **Introduction to inclusions**
Deanna Brady

- 15 May **Jade, past and present**
Rosamond Clayton
- 19 June **Jewellery in the auction world**
David Lancaster

Scottish Branch

For details of Scottish Branch meetings contact Ruth Cunningham on 0131 225 4105.

- 7 February **A Lab Night at Telford College, Edinburgh**

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
22 January **A. Kenneth Snowman, FSA**, will give a lecture about Wartski entitled *North Wales to W1 via Russia*.
The Society's **AGM** preceding the lecture will be open to members only. Guests, upon application and as space permits, to be invited into the lecture after the AGM.
- Monday
11 March **Anthony North, AMA, FSA, FRSA** will give a lecture on *Cut Steel, Jewellery and other uses*.
- Monday 15 April **David Callaghan** will give a lecture about *Hancocks the Jewellers*.
- Monday 20 May **Michael van Essen**, Curator of the Georg Jensen Museum in Copenhagen, will speak on *Georg Jensen Jewellery*.
- Monday 24 June **Charlotte de Syllas** will speak about her work.
- Monday
30 September **Charlotte Gere** will give a lecture entitled *From small beginnings: Jewel Cases and their Makers*.
- Monday
4 November **Ulla Tillander-Godenhielm** will speak about *The recently discovered Design Books of Henrik Wigstrom, Chief Workmaster to Fabergé*.
- Monday
9 December **Oppi Untracht** will speak about the subject of his book: *Indian Jewellery*.

The copy date for contributions for the March issue of *Gem and Jewellery News* is 20 January 1996